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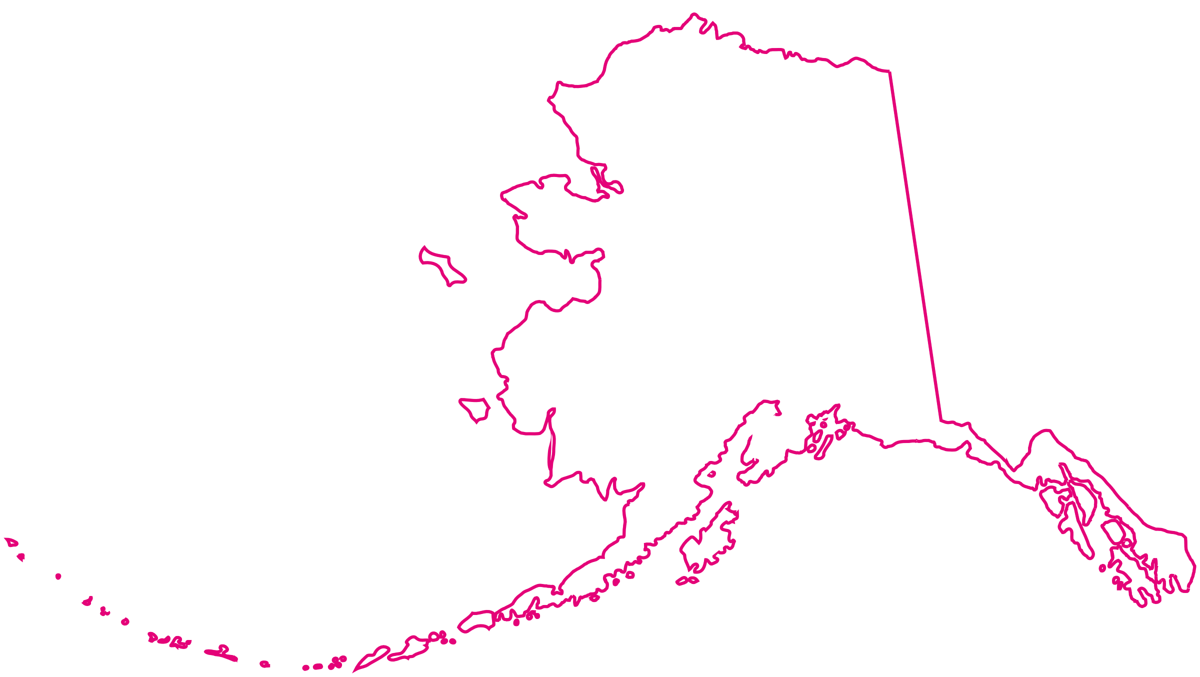
Water Resources Data Alaska Water Year 2002

By D.F. Meyer, J.S. Brinton, D.L. Hess, and C.W. Smith

Water-Data Report AK-02-1



U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the State of Alaska and with other agencies

CALENDAR FOR WATER YEAR 2002

2001

OCTOBER

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2002

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AUGUST

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SEPTEMBER

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22	23	24	25	26	27	28
29	30					

UNITED STATES DEPARTMENT OF THE INTERIOR

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See additional USGS information on water resources
of Alaska
on the World Wide Web at
http://ak.water.usgs.gov

2003

PREFACE

This volume of the annual hydrologic data report of Alaska is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by state, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

The report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey (USGS) who collected, compiled, analyzed, verified, and organized the data, and who revised, edited, typed, illustrated, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines. Most of the data were collected, computed, and processed from field offices. Chiefs-in-charge of the field offices are:

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Matt Schellekens, Fairbanks
Ronald Rickman, Anchorage

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Water resources data for the 2002 water year for Alaska consist of records of stage, discharge, and water quality of streams; stages of lakes; and water levels and water quality of ground water. This volume contains records for water discharge at 109 gaging stations; stage or contents only at 5 gaging stations; water quality at 26 gaging stations; and water levels for 45 observation wells. Also included are data for 32 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. Some data collected during 2002 will be published in subsequent reports. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Alaska.

14. SUBJECT TERMS
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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

Note--Data for partial-record stations and miscellaneous sites for both surface-water quantity and quality are published in separate sections of the data report. See end of this list for page numbers for these sections.

[Letters after station name designate type of data: (d) discharge, (c) chemical, (i) intragravel-water temperature, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation, gage height, (b) biological or contents]

	Station number	
SOUTHEAST ALASKA		
MAINLAND STREAMS		
Tyee Lake Outlet near Wrangell (d)	15019990	52
Harding River near Wrangell (d)	15022000	54
Stikine River near Wrangell (d)	15024800	56
Dorothy Lake Outlet (head of Dorothy Creek) near Juneau (d)	15039900	57
Dorothy Creek near Juneau (d)	15040000	59
Taku River near Juneau (d, t, c)	15041200	60
Gold Creek at Juneau (d).	15050000	66
Salmon Creek near Juneau (d)	15051010	68
Jordan Creek below Egan Drive near Auke Bay (d, t).	15052475	69
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Nugget Creek above Diversion near Auke Bay (d)	15052495	73
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Montana Creek near Auke Bay (d, c)	15052800	76
Duck Creek below Nancy Street near Auke Bay (d)	15053200	79
Antler River below Antler Lake near Auke Bay (d)	15055500	80
Kakuhan Creek near Haines (d, t)	15056030	81
Kahtaheena River above Upper Falls near Gustavus (d, t)	15057580	86
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Swan Lake near Ketchikan (d, e)	15070000	90
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Staney Creek		
North Fork Staney Creek near Klawock (d, t)	15081495	93
Staney Creek near Klawock (d, t)	15081497	97
Threemile Creek near Klawock (d)	15081610	101
Halfmile Creek above diversion near Klawock (d)	15081614	102
Reynolds Creek below Lake Mellen near Hydaburg (d)	15081995	103
Old Tom Creek near Kasaan (d, t)	15085100	104
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GROUND-WATER WELLS, BY HYDROLOGIC SUBREGION, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GROUND-WATER LEVELS

SOUTHEAST ALASKA
Juneau
WELL 582136134344802. Local number, CD04006631ACBC1015 355
WELL 582146134351701. Local number, CD04006631BBDD1016 355
WELL 582147134351401. Local number, CD04006631BBDB1017 356
WELL 582154134350501. Local number, CD04006630CDCB1027 356
WELL 582156134351701. Local number, CD04006631BBBA1018 357
WELL 582158134352001. Local number, CD04006630CCCD2017 357
WELL 582203134351601. Local number, CD04006630CCDB1028 358
WELL 582203134351701. Local number, CD04006630CCBD3015 358
WELL 582203134351901. Local number, CD04006630CCBD2015 359
WELL 582206134351401. Local number, CD04006630CCAC1029 359
WELL 582208134351201. Local number, CD04006630CCAB1030 360
WELL 582208134352601. Local number, CD04006630CCBB1031 360
WELL 582215134350501. Local number, CD04006630CBAD1032 361
WELL 582240134344501. Local number, CD04006630BADA2033 362
WELL 582240134352901. Local number, CD04006630BBCB1036 363
WELL 582314134344801. Local number, CD04006619BDDD1055 364
WELL 582314134351201. Local number, CD04006619BCDD2020 365
WELL 582322134341001. Local number, CD04006619ACAB1050 366
WELL 582326134341901. Local number, CD04006619ADBA1011 366
WELL 582359134352103. Local number, CD04006618CBCA3019 85177 367

SOUTH-CENTRAL ALASKA
Municipality of Anchorage
WELL 611725149335401. Local number, SB01400223BCCD1003 368

YUKON ALASKA
Fairbanks North Star Borough
WELL 644321147163801. Local number, FD00200223DDBA1003 369
WELL 644331147183901. Local number, FD00200222DABD1006 370
WELL 644345147172101. Local number, FD00200223BDAD1002 371
WELL 644400147151501. Local number, FD00200224ABBB1001 51659 372
WELL 644401147193801. Local number, FD00200222BABA1005 373
WELL 644402147132801. Local number, FD00200319BAAB1001 374
WELL 644402147150401. Local number, FD00200224ABBA1002 375
WELL 644402147182601. Local number, FD00200222AAAA1004 376
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WELL 644408147162001. Local number, FD00200214DDDA1003 378
WELL 644423147124601. Local number, FD00200318DABC1006 379
WELL 644435147141901. Local number, FD00200213ADAD1007 380
WELL 644435147141902. Local number, FD00200213ADAD2007 381

WELL 644435147172001. Local number, FD00200214ACBC1002 382
WELL 644444147143901. Local number, FD00200213AACD1005 383
WELL 644446147120901. Local number, FD00200317BBCA1001 384
WELL 644450147131201. Local number, FD00200318ABBD1005 385
WELL 644454147151701. Local number, FD00200213ABBB1006 386
WELL 644528147131201. Local number, FD00200307ACBD1001 51660 387
WELL 644531147130801. Local number, FD00200307ACBA1007 388
WELL 644547147141801. Local number, FD00200306CCCC1002 389
WELL 644603147131401. Local number, FD00200306DBCA1001 390
WELL 644603147151801. Local number, FD00200201DBCB1002 391
WELL 645434147385101. Local number, FB00100113DDBC2001 50673 392

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Alaska have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Short-term, seasonal, and fragmented records for data collected at 190 sites in Alaska west of 141 degrees longitude during water years 1906-14 have not been entered into NWIS and are not included in this list. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only)]

* Currently operated as a crest-stage partial-record station

Discontinued surface-water discharge or stage-only stations

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTHEAST ALASKA			
Salmon River near Hyder (d)	15008000	a94	1963-73
Davis River near Hyder (d)	15010000	a80	1930-40
Red River near Metlakatla (d)	15011500	45.3	1963-78
White Creek near Ketchikan (d)	15011870	2.70	1977-84
Keta River near Ketchikan (d)	15011880	74.2	1977-84
Blossom River near Ketchikan (d)	15011894	68.1	1981-84
Winstanley Creek near Ketchikan (d)	15012000	15.5	1936-38 1947-75
Punchbowl Lake Outlet near Ketchikan (d)	15014000	a12	1924-30
Klahini River near Bell Island (d)	15015600	58.0	1967-73
Short Creek near Bell Island at Short Bay (d)	15016000	a20	1922-26
Shelokum Lake Outlet near Bell Island (d)	15018000	15.6	b1915-25
Tyee Creek near Wrangell (d)	15020000	ar15.2	c1922-27
Tyee Creek at Mouth near Wrangell (d)	15020100	16.1	1963-69
East Fork Bradfield River near Wrangell (d)	15020500	63.3	1979-81
Mill Creek near Wrangell (d)	15024000	a37	1915-17 c1923-28
Goat Creek near Wrangell (d)	15024750	17.3	1976-86
Cascade Creek near Petersburg (d)	15026000	23.0	1918-29 1947-73
Scenery Creek near Petersburg (d)	15028000	30.0	1949-52
Farragut River near Petersburg (d)	15028300	151	1977-93
Sweetheart Falls Creek near Juneau (d)	15030000	r36.3	b1915-27
Long Lake near Juneau (e)	15031700	30.2	1965-75
Long Lake Outlet near Juneau (d)	15032000	30.2	1913-16
Long River near Juneau (d)	15034000	32.5	1916-24 b1927-33 1952-68 R1969-73
Speel River near Juneau (d)	15036000	226	1916-18 1960-75
Crater Creek near Juneau (d)	15038000	11.4	b1913-21 c1923-24 1927-33

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTHEAST ALASKA--Continued			
Dorothy Creek near Juneau (d)	15040000	15.2	1929-41 c1942-44 1945-67
Carlson Creek at Sunny Cove near Juneau (d)	15042000	22.3	c1914 b1916-21
Carlson Creek near Juneau (d)	15044000	24.3	1951-61
Grindstone Creek near Juneau (d)	15046000	r3.75	1916-21
Sheep Creek near Juneau (d)	15048000	4.57	1911-14 1916-21 1947-73
Gold Creek near Juneau (d)**	15049900	8.41	1984-97
Salmon Creek above Canyon Mouth near Juneau (d)	15051008	9.50	R1982-90
Lemon Creek near Juneau (d)	15052000	12.1	b1951-73
Lemon Creek near Mouth near Juneau (d)	15052009	22.9	1983-86
Montana Creek near Auke Bay (d)	15052800*	15.5	1965-75 1983-87
Lake Creek at Auke Bay (d)	15053800	2.50	1964-73
Auke Creek at Auke Bay (d)	15054000	3.96	1947-50 1962-75
Herbert River near Auke Bay (d)	15054200	56.9	1967-71
Bridget Cove Tributary near Auke Bay (d)	15054600	0.95	1971-73
Davies Creek near Auke Bay (d)	15054990	15.2	1970-72
Sherman Creek at Comet (d)	15056000	3.65	1914-17
Dayebas Creek near Haines (d)	15056070	9.33	1980-81
Goat Lake Outlet near Skagway (d)	15056095	2.92	1991-97
Skagway River at Skagway (d)	15056100	a145	1964-86
West Creek near Skagway (d)	15056200	43.2	1962-77
Taiya River near Skagway (d)	15056210	179	1970-78
Upper Chilkoot Lake Outlet near Haines (d)	15056280	4.59	1993-97
Chilkat River at Gorge near Klukwan (d)	15056400	a190	1962-68
Chilkat River near Klukwan (d)	15056500	a760	1959-61
Klehini River near Klukwan (d)	15056560	284	1982-93
Kahtaheena River near Gustavus	15057590	10.7	1998-2001
Purple Lake Outlet near Metlakatla (d)	15058000	6.67	1947-56
Whipple Creek near Ward Cove (d)	15059500	5.29	1968-80
Perseverance Creek near Wacker (d)	15060000	2.81	b1932-39 1947-69
Ward Creek near Wacker (d)	15062000	14.0	1949-53 R1954-58

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTHEAST ALASKA--Continued			
Ketchikan Creek at Ketchikan (d)	15064000	13.5	R1910-12 bR1915-20 R1965-67
Beaver Falls Creek near Ketchikan (d)	15066000	5.8	c1917 1920-26 1928-32
Upper Mahoney Lake Outlet near Ketchikan (d)	15067900	2.03	1977-89
Mahoney Creek near Ketchikan (d)	15068000	5.70	b1920-34 1948-58 1978-81
Swan Lake (Falls Creek) near Ketchikan (d)	15070000#	36.5	b1916-34 1947-59
Ella Creek near Ketchikan (d)	15074000	19.7	1928-38 1947-58
Manzanita Creek near Ketchikan (d)	15076000	33.9	1928-37 1947-67
Grace Creek near Ketchikan (d)	15078000	30.2	1928-37 1964-69
Orchard Creek near Bell Island (d)	15080000	a59	1915-27
Traitors River near Bell Island (d)	15080500	20.8	1964-68
Staney Creek near Craig (d)	15081500	51.6	1965-81
Bonnie Creek near Klawock (d)	15081510	2.72	1981
Black Bear Lake Outlet near Klawock (d)	15081580	1.82	1980-91
Klawak River near Klawock (d)	15081620	46.1	1977
North Branch Trocadero Creek near Hydaburg (d)	15081800	17.4	1967-73
Reynolds Creek near Hydaburg (d)	15082000	a5.7	1951-56
Perkins Creek near Metlakatla (d)	15083500	3.38	1976-93
Myrtle Creek at Niblack (d)	15084000	--	1917-21
Saltery Creek near Kasaan (d)	15085000	5.53	1962-64
Cabin Creek near Kasaan (d)	15085300	8.83	1962-64
Virginia Creek near Kasaan (d)	15085400	3.08	1962-64
Indian Creek near Hollis (d)	15085600	8.82	1949-64
Harris River near Hollis (d)	15085700	28.7	1949-64
Maybeso Creek at Hollis (d)	15085800	15.1	1949-63
Wolf Lake Outlet near Hollis (d)	15085900	1.64	1995-98
Karta River near Kasaan (d)	15086000	49.5	1915-23
Neck Creek near Point Baker (d)	15086500	17.0	1960-67
Big Creek near Point Baker (d)	15086600	11.2	1964-81
Sunrise Lake Outlet near Wrangell	150086960	1.17	1976-80 1997-2001
Mill Creek at Wrangell (d)	15087000	0.09	1965-67

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTHEAST ALASKA--Continued			
Hammer Slough at Petersburg (d)	15087200	1.46	1965-67
Municipal Watershed Creek near Petersburg (d)	15087545	2.20	1979-88
No Name Creek near Petersburg (d)	15087560	3.17	1971-73
Hamilton Creek near Kake (d)	15087570	65.0	1977-86 1988-96
Rocky Pass Creek near Point Baker (d)	15087590	2.72	1977-88
Nakwasina River near Sitka (d)	15087610	31.9	1977-82
Sawmill Creek near Sitka (d)	15088000	39.0	c1920-23 1928-42 1946-57
Green Lake (outlet) near Sitka (d)	15090000#	r22.8	1915-25
Maksoutof River near Port Alexander (d)	15092000	a26	1951-56
Betty Lake Outlet near Port Armstrong (d)	15093200	2.66	1978-81
Sashin Creek near Big Port Walter (d)	15093400	3.72	1965-73 1975-80
East Branch Lovers Cove Creek Diversion near Big Port Walter (d)	15093600	--	1965-71
Deer Lake Outlet near Port Alexander (d)	15094000	7.41	1951-68
Coal Creek near Baranof (d)	15096000	28.5	b1922-27
Baranof River at Baranof (d)	15098000	32.0	1915-28 1958-74
Takatz Creek near Baranof (d)	15100000	17.5	1951-69
Nichols Creek near Angoon (d)	15100500	a0.12	1981
Stephens Creek near Angoon (d)	15100510	a0.14	1981
Kalinin Bay Tributary near Sitka (d)	15101200	2.28	1976-80
Greens Creek near Juneau (d)	15101500	22.8	1979-92
Hasselborg Creek near Angoon (d)	15102000	56.2	1951-68
Porcupine River near Chichagof (d)	15104000	7.12	1918-20
Falls Creek near Chichagof (d)	15106000	6.48	1918-20
Black River near Pelican (d)	15106100	24.7	1978-82
Hook Creek above Tributary near Tenakee (d)	15106940	4.48	1967-80
Hook Creek near Tenakee (d)	15106960	8.00	1966-80
Tonalite Creek near Tenakee (d)	15106980	14.5	1968-88
Kadashan River near Tenakee (d)	15107000	37.7	1964-79
West Fork Indian River near Tenakee (d)	15107910	3.02	1979-81
Indian River near Tenakee (d)	15107920	12.9	1976-82
Pavlof River near Tenakee (d)	15108000	24.3	1957-81
Hilda Creek near Douglas (d)	15108600	2.62	1967-71
Lawson Creek at Douglas (d)	15108800	2.98	1967-71
Fish Creek near Auke Bay (d)	15109000	13.6	1959-78

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTH-CENTRAL ALASKA			
Dick Creek near Cordova (d)	15195000	7.95	1970-81
Gakona River at Gakona (d)	15200000	a620	c1970
Tazlina River near Glennallen (d)	15202000	a2670	1949-50 1952-72
Klutina River at Copper Center (d)	15206000	a880	c1913 1949-67 c1970
Little Tonsina River near Tonsina (d)	15207800	22.7	1972-78
Tonsina River at Tonsina (d)	15208000	a420	b1950-82
Squirrel Creek at Tonsina (d)	15208100	70.5	1965-75
West Fork Kennicott River at McCarthy (d)	15209700	---	c1992-95
East Fork Kennicott River at McCarthy (d)	15209800	---	c1991-92
Tebay River near Chitina (d)	15211500	a55.4	1962-65
Copper River near Chitina (d)	15212000	a20600	c1950 c1952-53 1956-90
Copper River at Million Dollar Bridge near Cordova (d)	15214000	24200	b1907-10 c1913 1988-95
Heney Creek at canyon mouth near Cordova (d)	15215992	1.53	1992-93
Power Creek near Cordova (d)	15216000	20.5	c1913 1947-95
Middle Arm Eyak Lake Tributory near Cordova (d)	15216003	2.90	1992-93
Murchison Creek near Cordova (d)	15216008	a0.37	1992-93
Humpback Creek near Cordova (d)	15216100	4.37	c1913 1974-75
West Fork Olsen Bay Creek near Cordova (d)	15219000	4.78	1964-81
Duck River at Silver Lake Outlet near Valdez (d)	15223900	25.1	1982-85
Duck River near Tidewater near Valdez (d)	15224000	26.7	c1913-14 1982-85
Solomon Gulch Bypass near Valdez (d)	15225998	---	c1986-94
Lowe River near Valdez (d)	15226500	201	1971-74
Lowe River in Keystone Canyon near Valdez (d)	15226600	222	1975-76
Hobo Creek near Whittier (d)	15236000	5.53	c1913 1990-2000
Nellie Juan River near Hunter (d)	15237000	133	1961-65
Main Bay Creek near Port Nellie Juan (d)	15237020	5.93	1981-84
San Juan River near Seward (d)	15237360	12.4	1986-96
Resurrection River at Seward (d)	15237700	169	1965-68
Bear Creek Tributary near Seward (d)	15237800	1.63	1967-68
Lost Creek near Seward (d)	15238000	8.42	1948-50

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTH-CENTRAL ALASKA--Continued			
Lowell Creek above city wells at Seward (d)	1523849020	3.73	1993-95
Lowell Creek at Seward (d)	15238500	4.02	1965-68 1991-93
Nuka River near Tidewater near Homer (d)	15238653	a38	1984-85
Seldovia River near Seldovia (d)	15238795	26.2	1979-80
Barabara Creek near Seldovia (d)	15238820	20.7	1972-92
Tutka Lagoon Creek near Homer (d)	15238860	10.8	1973-76
Battle Creek below Glacier near Homer (d)	15238982	g11.8	1991-93
South Fork Battle Creek near Homer (d)	15238984	a6.5	1991-93
Battle Creek near Tidewater near Homer (d)	15238985	ag21	1991-93
Fritz Creek near Homer (d)	15239500*	10.4	1967-70 1986-92
Twitter Creek near Homer (d)	15239880	16.1	1971-73
Anchor River near Anchor Point (d)	15239900*	137	1965-73 1979-86 1991-92
Anchor River at Anchor Point (d)	15240000	224	1953-66
Kasilof River near Kasilof (d)	15242000	738	1949-70
Snow River near Divide (d)	15243500	a99.8	1961-65
Ptarmigan Creek at Lawing (d)	15244000	32.6	1947-58
Grant Creek near Moose Pass (d)	15246000	44.2	1947-58
Trail River near Lawing (d,e)	15248000	181	d1947-74 e1975-77
Crescent Creek near Moose Pass (d)	15253000	21.4	1957-60
Crescent Creek near Cooper Landing (d)	15254000	31.7	1949-66
Cooper Creek near Cooper Landing (d)	15260000	31.8	1949-59
Stetson Creek near Cooper Landing (d)	15260500	a8.6	1958-63
Russian River near Cooper Landing (d)	15264000	61.8	1947-54
Beaver Creek near Kenai (d)	15266500	a51	1968-78
Bernice Lake near Kenai (e)	15266895	--	1977-79
Bishop Creek near Kenai (d)	15267000	a24.2	1977-79
Resurrection Creek near Hope (d)	15267900	149	1968-86
Resurrection Creek at Hope (d)	15268000	162	1950-51
Glacier Creek at Girdwood (d)	15272550	r58.2	1965-78
Rabbit Creek at Anchorage (d)	15273050	a15	1979-80 1984-85
Little Rabbit Creek above Goldenview Drive at Anchorage (d)	15273095	5.06	1981-85
Little Rabbit Creek at Anchorage (d)	15273102	5.94	1979-80
Rabbit Creek at New Seward Highway at Anchorage (d)	15273105	a24.5	1984-86

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTH-CENTRAL ALASKA--Continued			
South Fork Campbell Creek at Canyon Mouth near Anchorage (d)	15273900	25.2	1967-79
South Fork Campbell Creek near Anchorage (d)	15274000	29.2	1947-71 1999-2001
North Fork Campbell Creek near Anchorage (d)	15274300	13.4	1974-84
Little Campbell Creek at Nathan Drive near Anchorage (d)	15274550	a15	c1981 1986-92
Campbell Creek near Spenard (d)	15274600	69.7	1966-93
Sand Lake near Spenard (e)	15274700	--	c1967-74
South Branch South Fork Chester Creek near East 20th Ave. at Anchorage (d)	15274798	9.39	1981-84
Chester Creek at Anchorage (d)	15275000	20.0	1958-76
Chester Creek at Arctic Boulevard near Anchorage (d)	15275100	27.4	1966-86 1987-93 1999-2001
Ship Creek at Elmendorf Air Force Base near Anchorage (d)	15276500	113	1963-71
Ship Creek below Power Plant at Elmendorf Air Force Base (d)	15276570	115	1971-81
Ditch on Elmendorf Air Force Base (d)	15276650	3.73	1973-75
Eagle River at Eagle River (d)	15277100	a192	1966-81
Peters Creek near Birchwood (d)	15277410	87.8	1973-83
East Fork Eklutna Creek near Palmer (d)	15277600	538.2	1960-62 1985-89
West Fork Eklutna Creek near Palmer (d)	15277800	25.4	1960-62 1985-89
Eklutna Creek near Palmer (d)	15280000	119	1947-54 R1955-62
Knik River near Palmer (d)	15281000	a1180	1960-88 1992
Caribou Creek near Sutton (d)	15282000	289	1955-78
Moose Creek near Palmer	15283700	47.3	1997-2001
Palmer Hayflat at railroad near Palmer (e)	15284500		1992-97
Cottonwood Creek near Wasilla (d)	15286000	28.5	1949-54 1998-2000
Susitna River near Denali (d)	15291000	a950	1957-66 1968-86
Maclaren River near Paxson (d)	15291200	a280	1958-86
Susitna River near Cantwell (d)	15291500	a4140	1961-72 1980-86
Chulitna River near Talkeetna (d)	15292400	a2570	1958-72 1980-86
Susitna River at Sunshine (d)	15292780	a11100	1981-86
Deception Creek near Willow (d)	15294010	48.0	1978-85
Deshka River near Willow (d)	15294100	591	1979-86 1999-2001

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTH-CENTRAL ALASKA--Continued			
Skwentna River near Skwentna (d)	15294300	a2250	1960-82
Yentna River near Susitna Station (d)	15294345	a6180	1981-86
Susitna River at Susitna Station (d)	15294350	a19400	1975-93
Capps Creek below North Capps Creek near Tyonek (d)	15294410	10.5	1979-85
Chuitna River near Tyonek (d)	15294450	131	1976-86
Chakachatna River near Tyonek (d)	15294500	a1120	1959-72
Montana Bill Creek at pipeline near Kenai (d)	15294585	--	c1991-92
Paint River near Kamishak (d)	15294900	205	1983-85 1989 1991-95
Little Kitoi Creek near Afognak (d)	15295500	2.63	1960-61
Terror River near Kodiak (d)	15295600	15.0	1962-68 1978-82 R1983-86
Uganik River near Kodiak (d)	15296000	123	1951-78
Spiridon Lake Outlet near Larsen Bay (d)	15296300	23.3	1962-65
Larsen Bay Creek near Larsen Bay (d)	15296480	3.92	1980-84
Falls Creek near Larsen Bay (d)	15296500	5.67	1974-75
Canyon Creek near Larsen Bay (d)	15296520	8.82	1974-76
Upper Thumb River near Larsen Bay (d)	15296550	18.8	1974-82
Karluk River at Outlet near Larsen Bay (d)	15296600	100	1975-76 1979-82
Akalura Creek at Olga Bay (d)	15296950	18.4	1975-76
Dog Salmon Creek near Ayakulik (d)	15297000	72.9	1960-61
Hidden Basin Creek near Port Lions (d)	15297100	3.01	1982-84
Hidden Basin Creek near Mouth near Kodiak (d)	15297110	11.9	1983-84
Myrtle Creek near Kodiak (d)	15297200*	4.74	1963-86
Middle Fork Pillar Creek near Kodiak (d)	15297450	2.02	1969-70
Monashka Creek near Kodiak (d)	15297470	5.51	1972 R1973-76
Falls Creek near Port Lions (d)	15297482	a4.3	1981-83
Kizhuyak River near Port Lions (d)	15297485	42.5	1980-94
SOUTHWEST ALASKA			
Whiskey Bills Creek near Sand Point (d)	15297602	a0.30	1983-84
Humboldt Creek at Sand Point (d)	15297603	a5.2	1983-84
Sweeper Creek at Adak (d)	15297617	1.0	1992-96
Moffett Creek at Adak (d)	15297625	4.5	1993-96
Limpet Creek on Amchitka Island (d)	15297640	1.69	1968-72
Falls Creek on Amchitka Island (d)	15297650	0.86	1968-72

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
SOUTHWEST ALASKA--Continued			
Clevenger Creek on Amchitka Island (d)	15297655	0.28	1968-74
Constantine Spring Creek on Amchitka Island (d)	15297660	--	1968-73
Bridge Creek on Amchitka Island (d)	15297680	3.03	1968-74
White Alice Creek on Amchitka Island (d)	15297690	0.79	1968-74
Lake Creek at Shemya Air Force Base (d)	15297767	a1.0	1971-73
Gallery Spring at Shemya Air Force Base (d)	15297771	--	1971-72
Gallery Creek at Shemya Air Force Base (d)	15297773	a1.0	1971-73
Eskimo Creek at King Salmon (d)	15297900	16.1	1973-76 1978-84
Tanalian River near Port Alsworth (d)	15298000	a200	1951-56
Tazimina River near Nondalton (d)	15299900	327	1981-86
Newhalen River near Iliamna (d)	15300000	3478	1951-67 1982-86
Kvichak River at Igiugig (d)	15300500	a6500	1967-87
Allen River near Aleknagik (d)	15301500	278	1963-66
Nushagak River at Ekwok (d)	15302500	a9850	1978-93
Grant Lake Outlet near Aleknagik (d)	15302800	r34.3	1959-65
Elva Lake Outlet near Aleknagik (d)	15302840	9.00	1980-82
Wood River near Aleknagik (d)	15303000	a1110	1957-70
Silver Salmon Creek near Aleknagik (d)	15303010	4.46	1985-86 c1988-89
Wood River Tributary near Aleknagik (d)	15303011	3.35	c1990 c1992-93
East Creek near Dillingham (d)	15303100	2.12	1973-75
Snake River near Dillingham (d)	15303150	113	1973-83
Kuskokwim River at McGrath (d)	15303600	a11700	1963-73
Kisaralik River near Akiak (d)	15304200	265	1980-87
Browns Creek near Bethel (d)	15304293	4.79	c1985-94
Browns Creek at Bethel (d)	15304298	10.5	c1985
YUKON ALASKA			
King Creek near Dome Creek (d)	15344000*	5.87	1983-90
Fortymile River near Steele Creek (d)	15348000	a5880	c1910-12 1976-82
Porcupine River at Old Crow, Yukon Territory, Canada (d)	15388950	a21400	f1980-89
Porcupine River near Fort Yukon (d)	15389000	a29500	1964-79
Chandalar River near Venetie (d)	15389500	a9330	1963-73
Boulder Creek near Central (d)	15439800*	31.3	1966-82 1984-86
Hess Creek near Livengood (d)	15457800	662	1970-78 1982-86

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
YUKON ALASKA--Continued			
Yukon River at Rampart (d)	15468000	a199400	1955-67
Chisana River at Northway Junction (d)	15470000	a3280	1949-71
Tanana River near Tok Junction (d)	15472000	a6800	1950-53
Tok River near Tok Junction (d)	15474000	a930	1952-54
Tanana River near Tanacross (d)	15476000	a8550	1953-90
Berry Creek near Dot Lake (d)	15476300*	65.1	1971-81
Dry Creek near Dot Lake (d)	15476400	57.6	1966-69
Clearwater Creek near Delta Junction (d)	15477500	a360	1977-79
Tanana River at Big Delta (d)	15478000	a13500	1949-52 1954-57
Tanana River near Harding Lake (e)	15481000	17240	c1968-82
Moose Creek at Eielson Air Force Base (d)	15485000	136	1964-65
Garrison Slough at Eielson Air Force Base (d)	15485200	6.24	1964-65
Chena River near North Pole (d)	15493500	r1445	1972-80
Chena River below Moose Creek Dam (d)	15493700	1,460	1979-96
Wood River near Fairbanks (d)	15514500	855	1968-78
Seattle Creek near Cantwell (d)	15515800	36.2	1966-75
Nenana River near Windy (d)	15516000	a710	1950-56
Nenana River near Healy (d)	15518000	a1910	1951-79
Healy Creek at Suntrana	15518020	a110	1998-2001
Nenana River at Healy (d)	15518040	a2100	1990-91
Nenana River near Rex (d)	15518300	a2450	1965-68
Teklanika River near Lignite (d)	15518350	490	1965-74
Chatanika River above Poker Creek near Chatanika (d)	15534800	419	1996
Poker Creek near Chatanika (d)	15534900	23.1	1971-78
Caribou Creek near Chatanika (d)	15535000	9.19	1970-84
Long Creek at Long near Ruby	15564450	25.4	1995-97
Melozitna River near Ruby (d)	15564600	2693	1961-73
Yukon River at Ruby (d)	15564800	a259000	1957-78
Middle Fork Koyukuk River near Wiseman (d)	15564875	a1200	1970-78 1984-87
Wiseman Creek at Wiseman (d)	15564877	49.2	1970-78
Jim River near Bettles (d)	15564885	465	1970-77
Koyukuk River at Hughes (d)	15564900	a18400	1960-82
Yukon River near Kaltag (d)	15565200	a296000	1957-66
Ophir Creek near Takotna (d)	15565235	6.19	1975-80
NORTHWEST ALASKA			
Snake River near Nome (d)	15621000	85.7	1965-81 1982-91

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record
NORTHWEST ALASKA--Continued			
Eldorado Creek near Teller (d)	15635000	5.83	1988-90 1992-98
Gold Run Creek near Teller (d)	15637000*	24.2	c1986-88
Crater Creek near Nome (d)	15668200	21.9	1975-85
Kuzitrin River near Nome (d)	15712000	a1720	c1908-10 1962-73
Humboldt Creek near Serpintine Hot Springs near Nome (d)	15716010	8.15	c1992-93
June Creek near Kotzebue (d)	15743000	10.9	1965-67
Kobuk River at Ambler (d)	15744000	a6570	1965-78
Noatak River at Noatak (d)	15746000	a12000	c1965-71
Ikalukrok Creek above Red Dog Creek near Kivalina(d)	15746980	59.2	1991-92
Red Dog Mine clean water ditch near Kivalina(d)	15746983	4.74	1991-92
North Fork Red Dog Creek near Kivalina (d)	15746988*	15.9	1991-92
Red Dog Creek above mouth near Kivalina(d)	15746990	24.6	1991-92
Ogotoruk Creek near Point Hope (d)	15748000	a35	c1958-62
ARCTIC SLOPE ALASKA			
Esatkuat Creek near Barrow (d)	15799000	a1.46	c1972-73
Esatkuat Lagoon Outlet at Barrow (d)	15799300	a3.52	c1972-73
Meade River at Atkasuk (d)	15803000	a1800	c1977
Teshekpuk Lake Outlet near Lonely (e)	15829995	a1400	c1977
Miguakiak River near Teshekpuk Lake near Lonely (d)	15830000	a1460	c1977
Colville River near Nuiqsut (d)	15880000	20670	c1977
Putuligayuk River near Deadhorse (d)	15896700	a176	1970-79 c1980 1982-86 c1987-95
Atigun River near Pump Station 4 (d)	15904800	48.7	1991-94
Atigun River Tributary near Pump Station 4 (d)	15904900*	32.6	1977-86
Sagavanirktok River near Sagwon (d)	15910000	2208	1970-78
Chamberlin Creek near Barter Island (d)	15975000	1.46	c1958
Neruokpukkoonga Creek near Barter Island (d)	15976000	123	c1958

Discontinued surface-water discharge or stage-only stations--Continued

[Footnotes at end of table on p. xxiv]

Station name	Station number	Drainage area (mi^2)	Period of record

Footnotes

** Currently operated as a water-quality partial record station
# Currently operated as a monthly discharge and reservoir elevation station
a Approximately
b Break in record
c Fragmentary or seasonal
f Additional record for water years 1961-79 available from discharge records of Water Survey of Canada
g Prior to diversion upstream
r Revised
R Regulated

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following continuous-record surface-water-quality stations in Alaska have been discontinued. Daily records of temperature, specific conductance, or sediment were collected and published for the period of record shown for each station. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

[Type of record: Temp. (temperature), S.C. (specific conductance), Sed. (sediment)]

Discontinued continuous record surface-water-quality stations
[Footnotes at end of table on p. xxix]

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
SOUTHEAST ALASKA				
White Creek near Ketchikan	15011870	2.70	Temp., S.C.	1978-83
Keta River near Ketchikan	15011880	74.2	Temp., S.C.	1978-81, 1983-84
Blossom River near Ketchikan	15011894	68.1	Temp., S.C.	1981-84
Stikine River near Wrangell	15024800	a19,920	Temp. Sed.	1976-82 1982
Speel River near Juneau	15036000	226	Temp., Sed.	1960
Dorothy Lake Outlet (head of Dorothy Creek) near Juneau	15039900	11.0	Temp	1996-99
Duck Creek below Nancy Street near Auke Bay	15053200	--	Temp	1997-99
Lake Creek at Auke Bay	15053800	2.50	Temp	1963-73
Auke Creek at Auke Bay	15054000	3.96	Temp.	1962-75
Davies Creek near Auke Bay	15054990	15.2	Temp.	1969-72
Skagway River at Skagway	15056100	a145	Temp., S.C.	1979-82 1980-82
Taiya River near Skagway	15056210	149	Temp.	1971-74, 1977
Chilkat River at Gorge near Klukwan	15056400	a190	Temp.	1962-67
Chilkat River near Klukwan	15056500	a760	Temp., Sed., S.C.	1960
Kahtaheena River near Gustavus	15057590	10.7	Temp.	1998-2001
Grace Creek near Ketchikan	15078000	30.2	Temp.	1965-69
Traitors River near Bell Island	15080500	20.8	Temp.	1965-68
Staney Creek near Craig	15081500	51.6	Temp.	1966-79
Klawak River near Klawock	15081620	46.1	Temp.	1976-77
Perkins Creek near Metlakatla	15083500	3.38	Temp.	1976-93
Saltery Creek near Kasaan	15085000	5.53	Temp.	1962-64
Cabin Creek near Kasaan	15085300	8.83	Temp.	1962-64
Virginia Creek near Kasaan	15085400	3.08	Temp.	1962-64
Big Creek near Point Baker	15086600	11.2	Temp.	1963-80
Sunrise Lake Outlet near Wrangell	15086960	1.17	Temp.	1978, 1980, 1998-2001
Zarembo Creek near Point Baker	15087110	1.27	Temp.	1979-80
Hamilton Creek near Kake	15087570	65.0	Temp.	1982-86, 1989-96
Rocky Pass Creek near Point Baker	15087590	2.72	Temp.	1978-79, 1981-82
Nakwasina River near Sitka	15087610	31.9	Temp.	1976-82
Betty Lake outlet at Port Armstrong	15093200	2.66	Temp.	1978-81

Discontinued continuous record surface-water-quality stations--Continued

[Footnotes at end of table on p. xxix]

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
SOUTHEAST ALASKA--Continued				
Sashin Creek near Big Port Walter	15093400	3.72	Temp.	1966-77
East Branch Lovers Cove Creek Diversion near Big Port Walter	15093600	--	Temp.	1965-71
Kalinin Bay tributary near Sitka	15101200	2.28	Temp.	1976-79
Greens Creek near Juneau	15101500	22.8	Temp. S.C.	1978-84 1979-85
Wheeler Creek near Douglas	15101600	57.1	Temp.	1970-73
North Arm Creek near Angoon	15102350	8.64	Temp.	1971-78
Hood Bay Creek near Angoon	15102400	--	Temp.	1970-71
Hook Creek above tributary near Tenakee	15106940	4.48	Temp.	1967-80
Hook Creek near Tenakee	15106960	8.00	Temp.	1966-78
Tonalite Creek near Tenakee	15106980	14.5	Temp. S.C., Sed.	1968-84, 1986-88 1972
Kadashan River near Tenakee	15107000	37.7	Temp.	1966-79
SOUTH-CENTRAL ALASKA				
Dick Creek near Cordova	15195000	7.95	Temp.	1971-79
Gakona River at Gakona	15200000	a620	Temp., S.C.	1953-54
Gulkana River at Sourdough	15200280	1,770	Temp.	1972-78
Klutina River at Copper Center	15206000	a880	Temp, S.C.	1953
Little Tonsina River near Tonsina	15207800	22.7	Temp.	1973-78
Tonsina River at Tonsina	15208000	a420	Temp., S.C.	1953, 1959-66
Copper River near Chitina	15212000	a20,600	Temp Sed. S.C.	1957, 1964-65, 1979-81 1957, 1963-65
Humpback Creek near Cordova	15216100	4.37	Temp.	1973-75
West Fork Olsen Bay Creek near Cordova	15219000	4.78	Temp.	1964-79
Duck River at Silver Lake outlet near Valdez	15223900	25.1	Temp.	1982-84
Duck River near tidewater near Valdez	15224000	26.7	Temp.	1982-84
Duck River above the Lagoon near Valdez	15224002	--	Temp.	1982-84
Lowe River in Keystone Canyon near Valdez	15226600	222	Temp.	1975-76
Tutka Lagoon Creek near Homer	15238860	10.8	Temp.	1973-76
Upper Bradley River near Homer	15238990	a10.0	Temp.	1979-90
Bradley River below dam near Homer	15239001	a66.0	Temp	1990-99
Bradley River near Tidewater near Homer	15239070	--	Temp	1986-99
Anchor River at Anchor Point	15240000	224	Temp., S.C.	1954, 1959-66
Ninilchik River at Ninilchik	15241600	131	Temp. Sed.	1963, 1965 1963-65
Trail River near Lawing	15248000	181	Temp.	1959-67
Kenai River at Cooper Landing	15258000	634	Temp., S.C.	1950

Discontinued continuous record surface-water-quality stations--Continued
[Footnotes at end of table on p. xxix]

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
SOUTH-CENTRAL ALASKA--Continued				
Kenai River below Skilak Lake Outlet near Sterling	15266110	1206	Temp.	1999-2001
Kenai River at Soldotna	15266300	1,950	Temp. Sed.	1999-2001 1979-80, 1999-2001
Beaver Creek near Kenai	15266500	a51	Temp.	1970-75
Bishop Creek near Kenai	15267000	a24.2	S.C.	1977-79
Rabbit Creek at Anchorage	15273050	a15	Temp.	1984-86
Little Rabbit Creek above Goldenview Drive at Anchorage	15273095	5.06	Temp.	1983-86
Rabbit Creek at New Seward Highway at Anchorage	15273105	a24.5	Temp.	1984-86
South Fork Campbell Creek near Anchorage	15274000	29.2	Temp.	1999-2001
Little Campbell Creek at Nathan Drive near Anchorage	15274550	a15.0	Temp. Sed.	1986-87 b1988-91
Campbell Creek near Spenard	15274600	69.7	Sed.	1986, 1988
Middle Fork Chester Creek at Nichols Street at Anchorage	611207149483600	--	Temp.	1982
Chester Creek at Anchorage	15275000	20.0	Temp.	1982
Chester Creek at Arctic Boulevard at Anchorage	15275100	27.4	Temp. Sed. S.C.	1981-86, 1999-2001 b1988-91 1981-86, 2000-01
Ship Creek near Anchorage	15276000	90.5	Temp.	1949-50
Ship Creek below powerplant at Elmendorf Air Force Base	15276570	115	Temp.	1970-80
Eagle River at Eagle River	15277100	a192	Temp. Sed., S.C.	1968-69, 1971 1967-69, 1971
East Fork Eklutna Creek near Palmer	15277600	38.2	Sed.	1985-87
West Fork Eklutna Creek near Palmer	15277800	25.4	Sed.	1985-87
Eklutna Creek near Palmer	15280000	119	Temp.	1950
Knik River near Palmer	15281000	a1,180	Temp. Sed. S.C.	1963, 1965 1962-66 1972
Chickaloon River near Sutton	15282800	--	Temp.	1953-54
Matanuska River at Palmer	15284000	a2,070	Temp. Sed. S.C.	1952-53, 1959-66 1953-54, 1959-66 1965-67, 1972
Susitna River near Denali	15291000	a950	Temp.	1974-82
Susitna River near Cantwell	15291500	a4,140	Temp.	1980, b1982-86
Susitna River at Gold Creek	15292000	a6,160	Temp. Sed.	1957, 1974-80, 1982-85 1952, 1957
Chulitna River near Talkeetna	15292400	a2,570	Temp.	b1982-86
Talkeetna River near Talkeetna	15292700	2,006	Temp.	1954
Susitna River at Sunshine	15292780	a11,100	Temp.	b1981-85

Discontinued continuous record surface-water-quality stations--Continued

[Footnotes at end of table on p. xxix]

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
SOUTH-CENTRAL ALASKA--Continued				
Willow Creek near Willow	15294005	166	Temp.	b1978-90
Deception Creek near Willow	15294010	48.0	Temp.	b1978-85
Deshka River near Willow	15294100	591	Temp.	1999-2001
Yentna River near Susitna Station	15294345	a6,180	Temp.	b1981-86
Susitna River at Susitna Station	15294350	a19,400	Temp.	1975-80, b1983-86
Chuitna River near Tyonek	15294450	131	Temp.	1976-78
Falls Creek near Larsen Bay	15296500	5.67	Temp.	1974-75
Canyon Creek near Larsen Bay	15296520	8.82	Temp.	1974-76
East Fork Upper Thumb River near Larsen Bay	15296545	8.99	Temp.	1979-82
Upper Thumb River near Larsen Bay	15296550	18.8	Temp.	1974-82
Thumb River near Larsen Bay	15296554	25.3	Temp.	1979-82
Karluk River at outlet near Larsen Bay	15296600	100	Temp.	1975-76, 1978-82
Akalura Creek at Olga Bay	15296950	18.4	Temp.	1975-76
Kizhuyak River near Port Lions	15297485	c42.5	Temp.	b1980-86, 1987-94
SOUTHWEST ALASKA				
Tazimina River near Nondalton	15299900	327	Temp.	1982-86
Nushagak River at Ekwok	15302500	a9,850	Temp.	1979-80, 1982
East Creek near Dillingham	15303100	2.12	Temp.	1973-76
Snake River near Dillingham	15303150	113	Temp.	1974-80
Kuskokwim River at Medfra	630615154424500	--	Temp.	1954
Kuskokwim River at Crooked Creek	15304000	a31,100	Temp. S.C.	1957-67, 1977-79 1957-67
YUKON ALASKA				
Yukon River at Eagle	15356000	a113,500	Temp. Sed.	1951-52, 1962-63, 1965-66 1962-66
Hess Creek near Livengood	15457800	662	Temp.	1971-72, 1976-77
Yukon River at Rampart	15468000	a199,400	Temp., S.C.	1954-56, 1961-64
Tanana River near Tok Junction	15472000	a6,800	Temp., S.C.	1951-53
Tanana River near Tanacross	15476000	a8,550	Temp., S.C. Sed.	1954, 1957-66
Tanana River at Big Delta	15478000	13,500	Temp. S.C.	1949-51 1949-52
Chena River near North Pole	15493500	1,430	Temp.	1972-79
Little Chena River near Fairbanks	15511000	372	Temp.	1972-81

Discontinued continuous record surface-water-quality stations--Continued
[Footnotes at end of table on p. xxix]

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
YUKON ALASKA--Continued				
Chena River at Fairbanks	15514000	a1,980	Temp. Sed. S.C.	1953, 1962-66, 1969-71 1962-71 1968-71
Tanana River at Nenana	15515500	a25,600	Temp. S.C.	1954-56 1954-57
Nenana River near Healy	15518000	a1,910	Temp. Sed., S.C.	1957-66 1953-66
Nenana River at Healy	15518040	a2,100	Temp.	1949
Caribou Creek near Chatanika	15535000	9.19	Temp.	1972-73
Long Creek at Long near Ruby	15564450	25.4	Temp.	1995-97
Yukon River at Ruby	15564800	a259,000	Temp. S.C.	1966-67, 1969-74 1966-74
Yukon River at Galena	15564860	--	Temp., S.C.	1954
Middle Fork Koyukuk River near Wiseman	15564875	a1,200	Temp.	1971-72, 1976-79
Wiseman Creek at Wiseman	15564877	49.2	Temp.	1973, 1976
Jim River near Bettles	15564885	11.7	Temp.	1971-76
Yukon River at Pilot Station	15565447	a321,000	Temp.	1976, 1978
NORTHWEST ALASKA				
Eldorado Creek near Teller	15635000	5.83	Temp.	1995-98
Kobuk River near Kiana	15744500	a9,520	Temp.	1978-81
Ogotoruk Creek near Hope	15748000	a35	Temp., Sed.	1959
ARCTIC SLOPE ALASKA				
Kuparuk River near Deadhorse	15896000	3,130	Temp.	1971-72, 1976, 1978-79
Putligayuk River near Deadhorse	15896700	a176	Temp.	1976
Sagavanirktok River near Sagwon	15910000	229	Temp.	1971

Footnotes

a Approximately
b Seasonal
c After diversion upstream beginning 1985

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State and other agencies, obtains a large amount of data pertaining to the water resources of Alaska each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled “Water Resources Data - Alaska.”

Water resources data for the 2002 water year for Alaska consist of records of stage, discharge, and water quality of streams; stages of lakes; and water levels and water quality of ground water. This volume contains records for water discharge at 109 gaging stations; stage or contents only at 5 gaging stations; water quality at 26 gaging stations; and water levels for 45 observation wells. Also included are data for 32 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. Some data collected during 2002 will be published in subsequent reports. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Alaska.

Records of discharge and stage of streams, stage of lakes, chemical quality, water temperatures, and suspended sediment were first published in U.S. Geological Survey Water-Supply Papers. Through September 30, 1960, these data were published in seven Water-Supply Papers entitled “Quantity and Quality of Surface Waters of Alaska” (through 1950, 1951-53, 1954-56, 1957, 1958, 1959, 1960). Since 1960, streamflow records and related data were published in a five-year series of Water-Supply Papers for 1961-65 and 1966-70 entitled “Surface Water Supply of the United States.” Water-quality records were published in a Water-Supply Paper entitled “Quality of Surface Waters of Alaska, 196l-63” and after then until 1970 in an annual series of Water-Supply Papers entitled “Quality of Surface Waters of the United States.” Records of ground-water levels were published from 1949 to 1974 in a series of Water-Supply Papers entitled “Ground-Water Levels in the United States.” Water-Supply Papers may be consulted in the libraries of the principal cities in the United States or may be purchased from U.S. Geological Survey, Branch of Information Services, Box 25286, Denver, CO 80225.

For water years 1961 through 1970, streamflow data were also released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as “U.S. Geological Survey Water-Data Report AK-02-1.” These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (907) 786-7100.

The USGS is continually updating the availability of its information on the World Wide Web. Current streamflow conditions (via satellite) for Alaska and other Alaskan water resource information can be found at http://ak.water.usgs.gov/

Nationwide information on water resources, including real-time and historic streamflow data, water-use data, publications and USGS program activities, can be found at http://water.usgs.gov/

COOPERATION

The U.S. Geological Survey and organizations of the State of Alaska have had cooperative agreements since 1958 for the systematic collection of streamflow records, water-quality records, and ground-water levels. Organizations that assisted in collecting data contained in this report through cooperative agreements with the USGS are:

Alaska Department of Community and Economic Development, Deborah B. Sedwick, Commissioner
Alaska Industrial Development and Export Authority, Alaska Energy Authority, Robert Poe, Jr., Executive Director
Alaska Department of Environmental Conservation, Michele Brown, Commissioner
Alaska Department of Fish and Game, Frank Rue, Commissioner
Alaska Department of Natural Resources, Division of Mining and Water Management, Pat Pourchot, Commissioner
Alaska Department of Transportation and Public Facilities, Joseph L. Perkins, Commissioner, in cooperation with the U.S. Department of Transportation, Federal Highway Administration
Central Council of Tlingit and Haida Indian Tribes of Alaska, Desiree Welch, Native Lands and Resources Manager
City and Borough of Juneau, Sally Smith, Mayor
City and Borough of Sitka, Valorie Nelson, Mayor
City and Borough of Yakutat, Tom Maloney, Mayor
City of Klawock, Donna Williams, Mayor
City of Wrangell, Fern Neimeyer, Mayor
Alaska Native Tribal Health Consortium, Paul Sherry, President/CEO
Haida Corporation, John Bruns, Resource Manager
Kenai Peninsula Borough, Dale Bagley, Mayor
Municipality of Anchorage, George Wuerch, Mayor
University of Alaska Southeast, John Pugh, Chancellor

The following Federal agencies assisted in the data-collection program by providing funds or services:

U.S. Army Corps of Engineers
U.S. Army Corps of Engineers, Cold Regions Research & Engineering Laboratory
U.S. Department of Agriculture, Forest Service
U.S. Department of the Interior, Bureau of Land Management
U.S. Department of the Interior, National Park Service

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Richard Kemnitz, Colville River at Umiat
Ed LaChapelle, McCarthy Creek near McCarthy
Dick Levitt, Kahtaheena River near Gustavus
Brian Omann, Sawmill Creek and Blue Lake near Sitka
Dean Orbison, Sawmill Creek and Green Lake near Sitka
Steve Paustian, Kadashan River near Tenakee
Alan Peck, Moody Creek near Aleknagik
Eric Sundberg, Greens Creek at Greens Creek Mine near Juneau
Tom Walters, Terror River near Kodiak
Bob Walworth, Tatalina River near Takotna
Ray Williams, Iliamna River near Pedro Bay
John Borg, Yukon River at Eagle
Rob Gieck, Sagavanirktok River Tributary near Pump Station 3
Sandy Hamilton, Nation and Kandik Rivers near Nation, and Kobuk River near Kiana
Vince Harkey, Ophir Creek near Yakutat
John Martinisko, Ikalukrok River below Red Dog Creek near Kivalina
Lorry Schuerch, Kobuk River near Kiana
Jennifer Williams, Indian River sites near Sitka

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Alaska contains more than 40 percent of the Nation's surface-water resources. The highest runoff rates per unit area are in southeast Alaska and in other areas influenced by the maritime climate of the northern Pacific Ocean and the Gulf of Alaska. In the interior and northern parts of the State, runoff rates are markedly lower than in the maritime-influenced areas. Runoff generally increases with altitude throughout the State, and year-to-year runoff variability increases from south to north.

Seasonal runoff characteristics differ from southern to northern Alaska. Areas influenced by maritime climates usually have two periods with high runoff: a spring snowmelt period and a fall rainfall period. High water can occur throughout the year, but the highest instantaneous peak discharges are more prevalent in the fall months; low-water periods usually occur in late spring and mid-summer, prior to the rainy fall period. Farther north, most of the total runoff and floods occur in the period from May through September; low-flow periods usually occur during late winter, shortly before spring snowmelt.

Cold spring temperatures throughout Alaska, following a relatively normal winter, resulted in low and record low monthly flows in March and April, in southeast Alaska, through June, in interior Alaska. Cold temperatures delayed spring breakup in south-central and interior rivers. During spring 2002, ice remained strong until rapid warming induced snowmelt runoff that initiated breakup. Large ice blocks formed ice jams throughout southwest, western, and interior Alaska. A Federal Disaster was declared for villages along the Tanana, Kuskokwim, and Yukon Rivers and scattered villages in southwest Alaska. The USGS operates few streamflow gaging stations in this region, and the existing stations are generally sited to avoid reaches affected by frequent ice jams. An elevation station, Kuskokwim at Aniak, 15304060, recorded a peak of record on May 18 as a result of ice-jam flooding. Water backed up behind the ice jam at Aniak overtopped a flood control dike for most of 3 days, May 13-15. Other areas in the state affected by ice-jam flooding were not measured by USGS.

Summer storms in arctic Alaska resulted in record high August monthly flows and a maximum daily flow for non-snowmelt periods on the Kuparuk River. During the same week, separate storms in the Chena River basin flooded local roads and campgrounds, but Moose Creek Flood Control Project regulated flows in Fairbanks.

Hubbard Glacier, the largest calving glacier in North America (25 percent larger than Rhode Island), advanced across the entrance to 35-mile-long Russell Fiord during June, temporarily turning it into a lake. Hubbard Glacier has been advancing for more than 100 years and has twice closed the entrance to Russell Fiord during the last 16 years, during the summers of 1986 and 2002. Water flowing into the cutoff fiord from mountain streams and glacier melt causes the level of Russell Lake to rise. A stage-only gage on Russell Fiord/Lake documented both rises, and are presented here. However, both dams failed before the lake altitude rose enough for water to spill over a low pass at the far end of the fiord and enter the Situk River drainage, a world-class sport and commercial fishery near Yakutat.

Ground Water

Alaska's vast area and small population preclude a comprehensive evaluation of its ground-water resources. Throughout much of the State, aquifers are poorly defined. In many areas, wells have not been drilled and little is known about seasonal and long-term changes in ground-water storage. During water year 2002, the long-term monitoring of water levels in one well in Juneau, one well in Anchorage, and three wells in Fairbanks continued. Water levels were also measured in 21 wells in Fairbanks to monitor ground water levels in the vicinity of the Chena River dam. Water levels were measured intermittently in 15 wells and continuously in 4 wells in Juneau for studies of the interaction between ground water and water in anadromous fish streams.

Water levels in the long-term monitoring wells in Juneau, Anchorage, and Fairbanks were within the range of historical values. Water levels in wells in the Duck and Jordan Creek watersheds in Juneau are closely related to the infiltration of rain and snowmelt and the level of water in nearby streams. Some of these wells are in stream channels or on flood plains and are intermittently flooded; most water levels in these wells were within 10 feet of land surface. Spring 2002 recorded record low flows in these channels and extreme low water levels in some of these wells.

Water Quality

General Overview

Information on the concentration and composition of constituents in Alaska’s surface water is markedly variable in coverage. Some subregions have had regular or periodic sampling for many years at many stream points and at a number of lakes. Information in other subregions consists of only a few miscellaneous samples. Although the chemical characteristics of water in the streams and lakes of Alaska seem variable, the ranges in concentration are not as great as those found in the conterminous United States. Most Alaskan streams above tidal reaches contain water of a calcium bicarbonate type, generally containing less than 200 mg/L dissolved solids. In these streams, the hardness generally increases with increased dissolved-solids content. The streams draining lowlands and intermontane basins usually contain harder water than the streams in the higher mountains. Some streams, especially those draining areas overlain by organic-rich deposits, can have excessive iron content.

In Alaska, the mineral content of water in lakes is more variable than that in rivers. The water in some mountain lakes is very low in dissolved-solids content and is little more concentrated than rainwater. Other lakes occupying lowlands near the sea, including many near the Arctic coastal plain, have become mineralized periodically by salts brought in from the sea either by overland flooding during storms or as ocean spray. The water in lakes in the lowlands remote from the sea is commonly very similar in chemical character to water in the larger rivers adjacent to them.

The character and distribution of suspended sediment are relatively complex in Alaska because glaciers contribute large amounts of very fine material (glacial flour) to many streams. In general, during the summer, suspended-sediment concentrations in nonglacial streams seldom exceed 100 mg/L, but can be greater than 2,000 mg/L for glacial streams. Nonglacial streams often transport the highest sediment loads during the spring breakup or during periods of high rainfall, whereas glacial streams transport the greatest sediment loads during periods of maximum glacial melting, usually in middle or late summer. The normal suspended-sediment concentration between January and April is usually less than 20 mg/L for most nonurban streams. Thus, less than 15 percent of the annual suspended-sediment load is carried during this period. The percentage of material finer than 0.062 millimeter (the silt-clay fraction as generally defined) transported by nonglacial streams is less than 50 percent in contrast to more than 50 percent for glacial streams.

Outside of the major urban areas, almost all ground water is obtained from unconsolidated aquifers. Most sampled water contains less than the State’s recommended limit of 500 mg/L dissolved solids. Calcium and magnesium, which along with bicarbonate contribute to the hardness of water, are the major dissolved ions. In most wells, hardness concentrations are about 60 to 80 percent of dissolved-solids concentrations. Water of sodium bicarbonate or sodium chloride type is present in numerous community wells drilled near the coast.

Iron is present in high concentrations in a large number of shallow wells in most areas of the State. Concentrations in excess of 1.0 mg/L are common. Iron concentrations of more than about 0.3 mg/L can cause staining of laundry and plumbing fixtures and impart an unpleasant taste to the water.

The bedrock aquifers in most of Alaska are undeveloped and very little is known about their water quality. In general, the concentration of dissolved solids in water from bedrock aquifers is higher than that found in the unconsolidated aquifers and the chemical quality of water in bedrock aquifers is more variable.

Most of the State’s ground-water resources have, for the present, been unaffected by humans. However, in the major urban areas and in some outlying villages, ground-water quality has been locally degraded, primarily from septic systems, landfills, and abandoned fuel storage tanks. Most ground-water contamination problems in Alaska are caused by petroleum products, primarily from leaky fuel tanks.

In 2002 as part of the Clean Water Action Plan, water-quality, and bed-material samples were collected at sites in Gates of the Arctic National Park and Preserve, Cape Krusenstern National Monument, and Sitka National Historical Park.

In 2002 sampling at 5 stations in the Yukon Basin continued as part of the National Stream-Quality Assessment Program (NASQAN), the second year of a five year monitoring program. The Alaska District is also collecting samples for personnel from the National Research Program to help extend the normal NASQAN data and assisted on 2 synoptic sampling trips from Yukon River at Eagle to Yukon River near Stevens Village.

A majority of stream temperatures at continuous water temperature stations had their maximum annual water temperature occur on August 3-5, 2002. Nearly the whole state had clear skies during this period.

Water-quality sampling is also done for projects throughout Alaska. The analyses for these samples are published in reports discussing these projects. For more information on reports published in 2002, contact the Chief, Water Resources Office (see p. ii) or the Alaska Water Resources Office webpage at http://ak.water.usgs.gov.

Remark Codes

The following remark codes may appear with the water-quality data in this section:

PRINTED OUTPUT	REMARK
E	Value is estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

Dissolved Trace-Element Concentrations

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (μg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10’s and 100’s of nanograms per liter (ng/L). Present data above the μg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes. However, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994. Full implementation of the protocols took place during the 1995 water year.

Quality-control data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

BLANK SAMPLES – blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank samples for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this District are:

Source solution blank – a blank solution that is transferred to a sample bottle in an area of the office laboratory with an atmosphere that is relatively clean and protected with respect to target analytes.

Ambient blank – a blank solution that is put in the same type of bottle used for an environmental sample, kept with the set of sample bottles before sample collection, and opened at the site and exposed to the ambient conditions.

Field blank – a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank – a blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank – a blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office.)

Sampler blank – a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Pump blank – a blank solution that is processed through the same pump-and-tubing system used for an environmental sample.

Standpipe blank – a blank solution that is poured from the containment vessel (stand-pipe) before the pump is inserted to obtain the pump blank.

Filter blank – a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank – a blank solution that is treated with the sampler preservatives used for an environmental sample.

Canister blank – a blank solution that is taken directly from a stainless steel canister just before the VOC sampler is submerged to obtain a field blank sample.

REFERENCE SAMPLES – Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

REPLICATE SAMPLES– Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent sample – a type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating collection of samples into two or more compositing containers.

Sequential sample – a type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample – a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

SPIKE SAMPLES – Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

Concurrent sample – a type of spike sample that is collected at the same time with the same sampling and compositing devices then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

Split sample – a type of spike sample in which a sample is split into subsamples contemporaneous in time and space then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

Water Use

Water use in the broad sense deals with man's interaction with and influence on the hydrologic cycle. In a technical sense, water use refers to water that is actually used for a specific purpose, such as domestic use, commercial needs, or industrial processing. The offstream water use for the state of Alaska was estimated for the year 2000. Fewer water use categories were estimated in 2000 than in previous surveys.

The largest water uses are probably instream uses for hydroelectric power generation, and fish and wildlife resources. The Alaska Water Use Act was amended in 1980 to include instream flow as a use. The amendments provide the opportunity for private individuals, and local, State, and Federal governments to legally acquire instream flow water rights. Either one or a combination of the four following types of uses can be acquired: 1) protection of fish and wildlife habitat, migration, and propagation; 2) recreation and parks; 3) navigation and transportation; and 4) sanitation and water quality. Eleven instream flow rights applications have been granted.

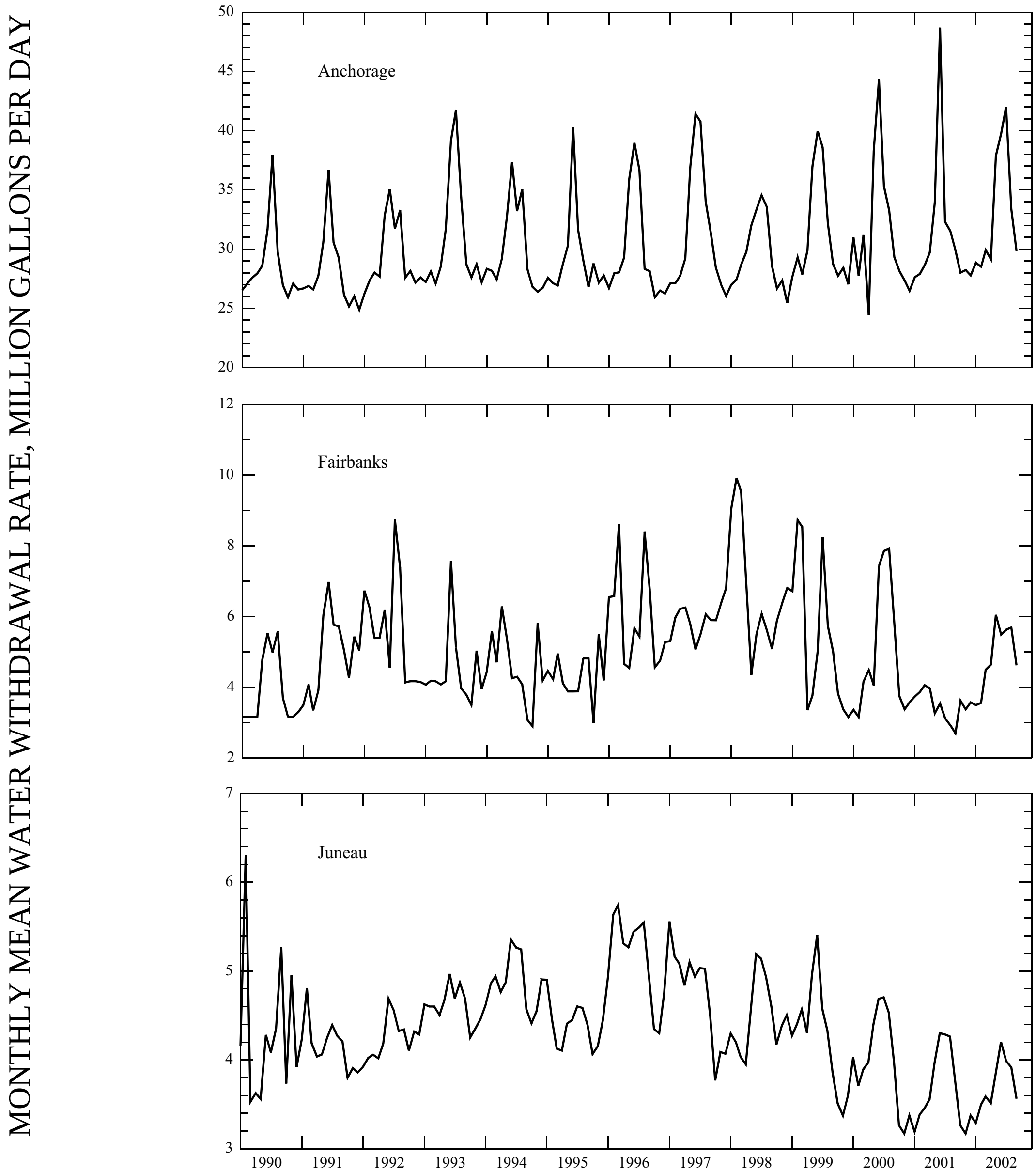
From 1990-2002, Alaska's population increased 17 percent, which was one of the Nation's larger percentage increases. In 2002, Alaska's population increased by 2 percent. In 2002, about 60 percent of the State's population lived in the Anchorage, Fairbanks, and Juneau areas.

Because of the population increase and building water supply distribution systems in many villages in rural Alaska, public-supply use of water is also increasing. In 2000, 67 percent of the State's population received their water from a public-supply utility; the remainder supplied their own water. Mining was the largest category of water use in 2000 when including saline water use. This use was mostly production of hard rock minerals and fossil fuels.

In 2000, the water utilities in the Anchorage, Fairbanks, and Juneau areas used 61 percent of all water withdrawn in the State for public supply. The monthly mean rate of water withdrawn by the principal public-supply utilities servicing these three areas from January 1990 to September 2002 is shown in figure 1. (Data are from Municipality of Anchorage, Fort Richardson, City of Fairbanks, and City and Borough of Juneau.) The higher usage shown during the summer months in Anchorage and Fairbanks is probably due to tourism and other commercial activity, increased industrial activity, and seasonal climatic effects.

The State's 2000 average use from public supply was 190 gallons per day per person, while the nation's average is 180 gallons per day. One of the nation's lowest per capita use of all public-supply customers of 10 gallons per day has been reported on the North Slope.

Surface water is the source for around 60 percent of the 2002 State's public-water supply in these three cities, while ground water is the source for the remainder. Anchorage receives 87 percent of its water from surface-water sources. Surface water became the primary source when water from Eklutna Lake was brought into production in 1988. Juneau obtained 71 percent of public-supply water from ground-water sources in 2002. Juneau has reduced using its surface-water source because of cost to meet water-quality regulations. Fairbanks obtains 100 percent of public-supply water from ground-water sources. Of the water withdrawn in Fairbanks, about two-thirds is treated to be suitable for domestic use, and the other one-third is for thermoelectric power use.



Monthly mean water withdrawal rate for public supply in the Anchorage, Fairbanks, and Juneau area, 1990 to 2002.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the streamflow representative of undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at http://water.usgs.gov/hbn/.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program can be found at http://water.usgs.gov/nasqan/.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation chemistry monitoring sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at http://bqs.usgs.gov/acidrain/.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest. Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program can be found at http://water.usgs.gov/nawqa/.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 2002 water year that began October 1, 2001, and ended September 30, 2002. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 1, 2 and 3. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether stream site, lake, reservoir, spring, or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The “downstream order” system is used for regular surface-water stations and the “latitude-longitude” system is used for wells, lakes, reservoirs, springs, and for surface-water stations where only miscellaneous measurements and/or water-quality samples are collected.

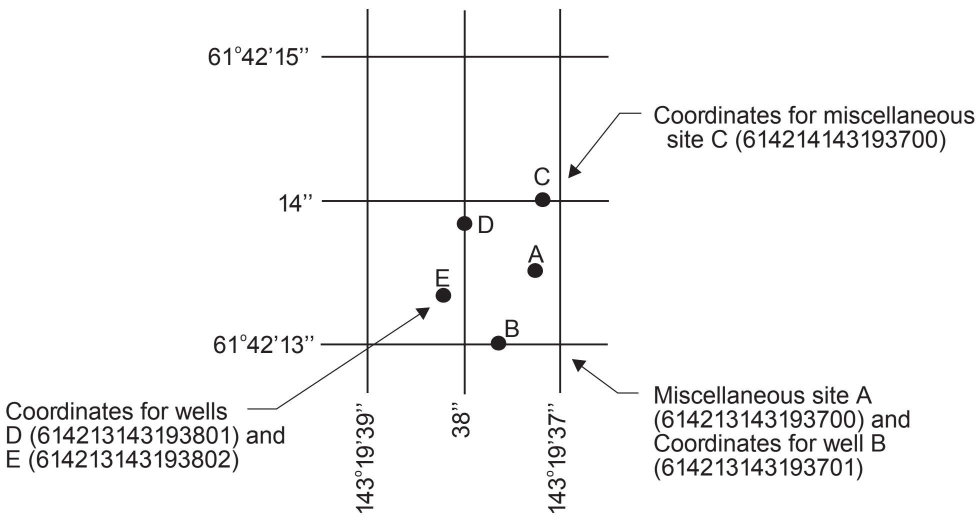
Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in USGS reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the “List of Stations” in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated. Stations located on islands in Alaska are in downstream order starting at the most westerly point on the island and moving around the island in a counterclockwise direction (stations on Kodiak Island start at the most northerly point).

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between regular stations and partial-record stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Water-quality stations located at or near regular stations or partial-record stations have the same number as the regular or partial-record station. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 15303600, which appears just to the left of the station name, includes the two-digit Part number “15” plus the six-digit downstream order number “303600.” The Part number designates the State of Alaska. Occasionally, the downstream order number consists of eight digits.

Latitude-Longitude System

The identification numbers for miscellaneous surface-water sites, wells, springs, lakes, and reservoirs are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description and also stored in the computerized data base files. See the accompanying diagram.



Local Number

The local number, which is assigned to well and spring sites, is derived in part from the rectangular subdivision of public lands and is used in Alaska as the site name. The first two letters indicate the principal meridian and the quadrant formed by the intersection of the base line and the principal meridian. The first three digits indicate the township in which the well or spring is located, the next three digits the range, and the last two digits the section. The letters following the section number indicate the quarter section, the quarter-quarter section, and so forth to the fourth order subdivision. Each of these subdivisions is lettered counter-clockwise, from the northeast corner. Each site within the smallest order of subdivision is then given a sequential number. Finally, each well within a section is assigned a sequential map number indicated by the last three digits. Thus, SB00601115BCAD1 001 denotes the Seward meridian (S), the northwest quadrant (B), township 6 north, range 11 west, section 15; and the site is in the SE¼ of NE¼ of the SW¼ of the NW¼ (BCAD) of the section. It was the first site in the 2.5 acre "D" subdivision assigned a sequential number (1). The next space is left blank. The next three digits, 001, indicate the sequence in which a site was located on a map. Thus, 001 indicates the first site plotted in the one-square-mile section. The next space is left blank. The last five digits, such as 00114, are the Alaska (AK) register number. Therefore, the local number is SB00601115BCAD1 001 00114. The local number for springs is the same, except for the last three digits and the Alaska (AK) register number, as indicated by the following example: SB00601115BCAD1S 4065S. Note: Public-land surveys have not been completed for a large portion of Alaska, therefore, some “local numbers” reflect this in an abbreviated form, e.g., SB00601115.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those at which daily mean discharges can be computed or estimated with reasonable accuracy from the supporting data and information. Because the daily mean discharges commonly are published, the stations are referred to as “daily stations.”

By contrast, partial records are obtained through discrete measurements and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as “Crest-stage partial records” or “Low-flow partial records.” Records of miscellaneous discharge measurements or from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Periodic lake-level measurements are also presented separately. Locations of all complete-record and crest-stage partial record stations for which data are given in this report are shown in figures 2 and 3, respectively.

Data Collection and Computation

Methodology

The base data collected at gaging stations consist of stage records and discharge measurements of streams, and stage of lakes. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations, a tape punched at selected time intervals, or an electronic data logger. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey. These methods are described in standard textbooks, in U.S. Geological Survey Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water Resources Investigations, Book 3, Chapter A6.

Computation

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) results of indirect measurements of peak discharge, such as slope-area or flow-through-culvert measurements and computations of flow-over-dams or weirs; (3) step-backwater techniques; or (4) velocity-area studies.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by shifting control method, in which correction factors based on the individual discharge measurements and notes of the person who made the measurement are added (or subtracted) to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of debris or aquatic growth on the control.

In computing records of reservoir contents, it is necessary to have curves or tables defining the relation of stage and contents (from prior survey and computations). The application of stage to stage-content curves or tables gives the contents from which daily, monthly, or yearly changes can be determined. Discharges over lake or reservoir spillways are computed from stage-discharge relations much as other stream discharges are computed. Discharge through hydro-power plants can be calculated indirectly by using the theoretical relation of flow-rates with the amount of power being generated by each turbine, the reservoir level, and the estimated efficiency of each turbine. It is necessary to have tables, curves, or formulas relating the above variables (usually supplied by the manufacturer of the turbine). It is also necessary to have records of reservoir elevation, either from periodic observations or continuous records, and power-generation records (usually furnished by the operators of the power plant).

<u>Winter discharge measurements</u>

At most stream-gaging stations in Alaska, the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed or estimated on the basis of the available gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrographers, and comparable records of discharge for other stations in the same or nearby basins. Determinations of 0.0 or no flow may indicate a lack of distinguishable velocity, but do not necessarily describe a dewatered channel.

<u>Estimates for periods of no data</u>

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge. This happens when the recorder is stopped for the winter or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, “Data Presentation” (“REMARKS” paragraph) and “Identifying Estimated Daily Discharge.”

Data Presentation

Streamflow data in this report are presented in a format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data presentation.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts: the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimum, and flow duration. Occasionally, data for other than the current year are published, usually to present unpublished data.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as location of station; drainage area; period of record; record accuracy; and other remarks pertinent to station operation and regulation. For some stations, historical extremes outside the period of record and peak discharges greater than base discharge for the station are given. The following information, as appropriate, is provided with each continuous record of discharge, stage, or reservoir contents. Comments to clarify information presented under the various headings of the station description follow:

LOCATION.--Information on locations is obtained from the most accurate maps available. The USGS topographic map showing the location of the station is included in parentheses for many sites, e.g. (Livengood E-1). The location of the gage with respect to the cultural and physical features nearby and to the reference place mentioned in the station name is given.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another or because of difficulties in determining drainage boundaries, the accuracy of drainage-area determinations likewise varies. As appropriate, some drainage-area figures are qualified by “approximately.” Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which published records are available for the station or for an equivalent station. An equivalent station is one that was in operation at a time the present station was not, and whose location was such that records from it can be considered reasonably equivalent with records from the current station. Some daily stations were previously operated as partial-record stations or had only monthly discharge records published. These periods are included in the paragraph.

REVISED RECORDS.--Published records occasionally are found to be incorrect, usually because of new information, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual discharge figures, that fact is noted after the year dates as follows: “(M)” means that only the instantaneous maximum discharge was revised; “(m)” that only the instantaneous minimum was revised; and “(P)” that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level (see “Definition of Terms”), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--Periods of estimated daily discharge will be identified by date in this paragraph for selected stations. For all stations, estimated daily discharge will be flagged in the daily discharge table. (See next section “Identifying Estimated Daily Discharge.”) If a REMARKS paragraph is used to identify estimated record, this information would be the first entry. This paragraph is also used to present information relative to the accuracy of the records, to the special methods of computation, to conditions that affect natural flow at the station, and to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose (use) of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here. Also, if data or information are supplied which aid in the computation of the record, the agency providing the information is named.

EXTREMES FOR PERIOD OF RECORD.--This paragraph is included in the station manuscript for stations for which tabular summary statistics are not appropriate because they have short records, seasonal records, or regulated flow.

EXTREMES OUTSIDE PERIOD OF RECORD.--Information about floods or unusually low flows that have occurred outside the stated period of record is included. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR or EXTREMES FOR CURRENT PERIOD.--This paragraph is included in the station manuscript for selected sites where peaks above base discharge are published and for stations for which tabular summary statistics are not appropriate because they have short records, seasonal records, or regulated flow. For records that meet certain criteria, all peak discharges and stages greater than a selected base discharge during the water year are given. The peaks greater than the base discharge, excluding the highest one, are called secondary peaks. The time that the peak occurred is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330. Except for stations for which tabular summary statistics are not appropriate, the maximum and minimum for the current water year appears below the daily values table in the tabular summaries.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. For these stations, there may be no current or, possibly, future station manuscript published to document the revision in a “Revised Records” entry; users of data for these stations who obtained the record for previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. If the data for a discontinued station were obtained by computer retrieval, the data would be current because any previously published data are automatically accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the “Remarks” and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings that appeared in reports before water year 1991 for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, and EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate, except for stations for which tabular summary statistics are not appropriate. No changes have been made to the data presentation of lake contents.

Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives the mean discharge for each day of the water year. In the monthly summary for the daily table, the line headed “TOTAL” gives the sum of the daily figures for each month; the line headed “MEAN” gives the average flow in cubic feet per second for the month; and the lines headed “MAX” and “MIN” give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also may be expressed in acre-feet (line headed “AC-FT”), in cubic feet per second per square mile (line headed “CFSM”), or in inches (line headed “IN”). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the contributing drainage area or boundaries are unknown, or if the flow is mostly from a spring. At some stations, monthly and (or) yearly discharges are adjusted for diversions or changes in reservoir contents.

Statistics of monthly mean data

A tabular summary of the mean (line headed “MEAN”), maximum (line headed “MAX”), and minimum (line headed “MIN”) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as “FOR WATER YEARS ____ - ____, BY WATER YEAR (WY),” and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all the station records within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled “SUMMARY STATISTICS” follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____-____" will consist of all of the station records within the specific water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. The comments clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations, the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations, the annual mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1 - March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

MAXIMUM PEAK FLOW.--The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rist toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.--The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are differend, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information. **(For Alaska, a second line heading, MAXIMUM PEAK STAGE, is used for stations where the peak stage was from a backwater condition and had a different date from the peak discharge.)**

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. In prior years, data for low-flow partial-record stations have been published, but no stations were in operation in the current water year. Data are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage partial-record stations. The second is a table of discharge measurements made at crest-stage partial-record stations and miscellaneous sites. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are given in special tables following the listing of miscellaneous measurements. Lake-level data collected at miscellaneous selected lakes are included. The data are being collected at these selected lakes to define lake-level changes in response to seasonal variations, the effects of man, droughts, and changes in the ground-water system. The lake-level data follow the water-quality data tables for miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values in the current annual data report are identified by the “e” notation next to each mean daily discharge in the daily values tables. Prior to the report for the 1985 water year, estimated daily-discharge values were not specifically identified.

Accuracy of the Records

The accuracy of streamflow data depends primarily on: (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under “REMARKS” states the degree of accuracy of the records. “Excellent” means that about 95 percent of the daily discharges are within 5 percent of the true value; “good” within 10 percent; and “fair” within 15 percent. Records are rated as “poor” when they do not meet the criteria above. Different accuracies may be attributed to different parts of a given record.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous measurement sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, flow from springs, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions or for other factors that might affect the flows. At those stations where adjustments are made, large errors in computed runoff may occur if adjustments are large in comparison to observed discharge. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables, is filed in the field offices at Anchorage, Fairbanks, and Juneau for their areas of responsibility. Also, most of the daily mean discharges are in computer files and can be retrieved for statistical analyses. Information on the availability of unpublished data or statistical analyses may be obtained from the District Office in Anchorage.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A distinction needs to be made between “continuing records” as used in this report and “continuous recordings,” which refers to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained by continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-Site Measurements and Sample Collection

To assure the data obtained represent the *in situ* quality of the water, certain measurements, such as water temperature, pH, alkalinity, and dissolved oxygen, are made onsite when the samples are collected. To assure that measurements made in the laboratory also represent the *in situ* water, prescribed procedures are followed in collecting, treating, and shipping the samples to prevent changes in quality pending analysis in the laboratory. These procedures are given in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4.

One sample can adequately define the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. For the tables of surface-water quality that are published in this report, parameter code 82398 (SAMPLING METHOD, CODES) lists a numeric value which corresponds to the following explanation:

10 - Equal width increment (EWI)
20 - Equal discharge increment (EDI)
25 - Timed sampling interval
30 - Single vertical
40 - Multiple verticals
50 - Point sample
60 - Weighted bottle
70 - Grab sample (dip)
80 - Discharge integrated, equal transit rate (ETR)
90 - Discharge integrated, centroid
100 - Van Dorn sampler
110 - Sewage sampler
120 - Velocity integrated
8010 - Other

To better define the sample, parameter code 84164 (SAMPLER TYPE) lists a numeric value which corresponds to the following explanation:

100 - Van Dorn sampler
110 - Sewage sampler
3001 - Sampler, US DH-48
3002 - Sampler, US DH-59
3003 - Sampler, US DH-75P
3004 - Sampler, US DH-75Q
3007 - Sampler, US D-49
3009 - Sampler, US D-74
3011 - Sampler, US D-77
3015 - Sampler, US P-63
3016 - Sampler, US P-72
3042 - Sampler, US P-61
3044 - US DH-81
3045 - US DH -81 with Teflon cap and nozzle
3050 - Collpsible Teflon Bag in Frame Sampler
3053 - US D-95 Teflon bottle
3054 - US D-95 Teflon bottle
3055 - US D-96 Teflon bag
3060 - Weighted Bottle Sampler
3070 - Grab Sampler
4020 - Open top bailer
4025 - Double valve bailer
4041 - Submersible Helical Rotor Pump
4080 - Peristaltic pump
4100 - Flowing Well
8010 - Other

For further explanation on sampling methods, see Techniques of Water-Resources Investigations, Book 3, Chapter C2, “Field Methods for Measurement of Fluvial Sediment.”

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are sometimes taken at the time of discharge measurements at water-discharge stations. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where temperature recording instruments are used, maximum and minimum temperatures for each day are published. Mean temperatures are published when diurnal variations are greater than 2.0 °C more than 5 percent of the water year. Water temperatures measured at the time of water-discharge measurements are on file in the District field offices.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of quantities of suspended sediment, records of periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Laboratory Measurements

Sediment samples are analyzed in the U.S. Geological Survey laboratory in Vancouver, Washington. Methods used in analyzing sediment samples and computing sediment records are given in Techniques of Water-Resources Investigations, Book 5, Chapter C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4.

Records of Ground-Water Levels

Ground-water level data from a statewide network of observation wells are published in this report. This network consists of observation wells (figure 3) located either in important aquifers or in areas of significant water use.

Data Collection and Computation

Water-level measurements are made in many types of wells, under varying conditions of access and weather conditions. However, the equipment and measuring techniques used at each observation well assure that the measurements are of consistent accuracy and reliability.

Tables of water-level data are presented by Hydrologic Subregion. The station-identification number for a given well is the 15-digit number that appears in the upper left corner of the station description. The secondary identification number is the local number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape, battery-operated electric tape, or from a water-stage recorder that gives a continuous graph of water-level fluctuations, a paper tape punched at selected time intervals, or data stored at selected time intervals on an electronic data logger. The water-level measurements in this report are given in feet with reference to either sea level or land-surface datum. Sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum is given in the well description. The height of the measuring point above or below land-surface datum is also given in each well description. Water levels in wells equipped with recording gages are the highest ground-water level recorded in the well on the day indicated.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet and if an electric water sensor is used, the error in determining the absolute value of the total depth to water may be a few tenths of a foot. However, the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some may be given only to a tenth of a foot.

Data Presentation

Each well record consists of the station description and the data table of water levels observed during the water year. The description of the well is presented through use of descriptive headings preceding the tabular data. Clarification of each heading is given below.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the Hydrologic Unit; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above sea level; it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words “to current year” if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the U.S. Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of record, with respect to land-surface datum or sea level, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet above or below land-surface datum. Water levels that are above land-surface datum have negative values. For wells equipped with recorders, water level values listed are the highest recorded in the well on the day indicated. Missing records are indicated by dashes in place of the water level.

Information of a more detailed nature than that published, such as well depths and water levels from other ground-water sites throughout the State, is filed in the Anchorage field office. Much of the data are in computer files and can be retrieved for analysis. Information on the availability of unpublished data may be obtained from the District Office in Anchorage.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes one annual sampling, or a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some areas but none for other areas. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other areas in earlier years.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed by Hydrologic Subregion, and are identified by well number. The station-identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the Internet. These data may be accessed at:

http://water.usgs.gov

Some water-quality and ground-water data also are available through the Internet. In addition, data can be provided in various machine-readable formats on compact disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (see address on the back of the title page).

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting inch/pound units to International System (SI) units on the inside of the back cover.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also “Biomass” and “Dry weight”)

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also “Biomass” and “Dry mass”)

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also “Peak flow”)

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 foot) that are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also “Bedload” and “Sediment”)

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This is also called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

Bottom material (See “Bed material”)

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved solids content of the pore water and lithology and porosity of the rock.

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

sphere $4/3\ \pi r^3$ cone $1/3\ \pi r^2 h$ cylinder $\pi r^2 h$.

pi (π) is the ratio of the circumference to the diameter of a circle; pi = 3.14159….

From cell volume, total algal biomass expressed as biovolume (μm^3/mL) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

Clostridium perfringens *(C. perfringens)* is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(ft^3/s)/d]$) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, $(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc., within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i \approx 1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n} ,$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also “Ash mass,” “Biomass,” and “Wet mass”)

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also “Wet weight”)

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also “Substrate embeddedness class”)

Enterococcus bacteria are commonly found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants. (See also “Bacteria”)

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that are generally considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli *(E. coli)* are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Estimated (E) concentration value is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an ‘E’ code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an ‘E’ code even though the measured value is greater than the MDL. A value reported with an ‘E’ code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

Euglenoids (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "Phytoplankton")

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also "Phytoplankton")

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term "stage," although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat are typically made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Hilsenhoff's Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = sum\frac{(n)(a)}{N} ,$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See "Datum")

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it. (See also "Annual runoff")

Instantaneous discharge is the discharge at a particular instant of time. (See also "Discharge")

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. [Note: In several previous NWQL documents (NWQL Technical Memorandum 98.07, 1998), the LRL was called the nondetection value or NDV—a term that is no longer used.]

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L} ,$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L}\log_e\frac{I}{I_o} .$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or **low tide** is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, μg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, μg/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, μS/cm) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See "North American Vertical Datum of 1988")

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Vertical Datum of 1988 (NAVD 1988) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or **screened interval** is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Peak flow (**peak stage**) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or **percent of total** is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and commonly are known as algae. (See also "Plankton")

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7 $\times 10^{10}$ radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (**carbon method**) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use with unenriched water samples.

Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable from bed (bottom) material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (**conductivity**) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

Stage-discharge relation is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

Streamflow is the discharge that occurs in a natural channel. Although the term “discharge” can be applied to the flow of a canal, the word “streamflow” uniquely describes the discharge in a surface stream course. The term “streamflow” is more general than “runoff” as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is defined operationally as the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of "suspended, recoverable" constituents are made either by directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also "Suspended")

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also "Sediment")

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "Sediment" and "Suspended sediment")

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027. (See also "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also "Sediment")

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata,* is the following:

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	*Hexagenia*
Species:	*Hexagenia limbata*

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also "Bacteria")

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total length (fish) is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also "Organism count/volume")

Total recoverable is the amount of a given constituent in a whole-water sample after a sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also "Bedload," "Bedload discharge," "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "Sediment," "Suspended-sediment load," and "Total load")

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to U.S. EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of pathlength of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

WDR is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also “Plankton”)

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The USGS publishes a series of manuals titled the “Techniques of Water-Resources Investigations” that describe procedures for planning and conducting specialized work in water-resources investigations. The material in these manuals is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. Each chapter then is limited to a narrow field of the section subject matter. This publication format permits flexibility when revision or printing is required.
Manuals in the Techniques of Water-Resources Investigations series, which are listed below, are available online at http://water.usgs.gov/pubs/twri/. Printed copies are available for sale from the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (an authorized agent of the Superintendent of Documents, Government Printing Office). Please telephone “1-888-ASK-USGS” for current prices, and refer to the title, book number, section number, chapter number, and mention the “U.S. Geological Survey Techniques of Water-Resources Investigations.” Other products can be viewed online at http://www.usgs.gov/sales.html, or ordered by telephone or by FAX to (303)236-4693. Order forms for FAX requests are available online at http://mac.usgs.gov/isb/pubs/forms/. Prepayment by major credit card or by a check or money order payable to the “U.S. Geological Survey” is required.

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

1–D1. *Water temperature—Influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS–TWRI book 1, chap. D1. 1975. 65 p.

1–D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

2–D1. *Application of surface geophysics to ground-water investigations,* by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 p.

2–D2. *Application of seismic-refraction techniques to hydrologic studies,* by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

2–E1. *Application of borehole geophysics to water-resources investigations,* by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 p.

2–E2. *Borehole geophysics applied to ground-water investigations,* by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

2–F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI book 2, chap. F1. 1989. 97 p.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

3–A1. *General field and office procedures for indirect discharge measurements,* by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 p.

3–A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 p.

3–A3. *Measurement of peak discharge at culverts by indirect methods,* by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 p.

3–A4. *Measurement of peak discharge at width contractions by indirect methods,* by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.

3–A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS–TWRI book 3, chap. A5. 1967. 29 p.

3–A6. *General procedure for gaging streams,* by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 p.

3–A7. *Stage measurement at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 p.

3–A8. *Discharge measurements at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 p.

3–A9. *Measurement of time of travel in streams by dye tracing,* by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 p.

3–Al0. *Discharge ratings at gaging stations,* by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.

3–A11. *Measurement of discharge by the moving-boat method,* by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 p.

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3–A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 p.

3–A17. *Acoustic velocity meter systems,* by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 p.

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Section B. Ground-Water Techniques

3–B1. *Aquifer-test design, observation, and data analysis,* by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 p.

3–B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 p.

3–B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 p.

3–B4. *Regression modeling of ground-water flow,* by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 p.

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3–B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 p.

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Section C. Sedimentation and Erosion Techniques

3–C1. *Fluvial sediment concepts,* by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 p.

3–C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.

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Section A. Statistical Analysis

4–A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.

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Section B. Surface Water

4–B1. *Low-flow investigations,* by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.

4–B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.

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Section D. Interrelated Phases of the Hydrologic Cycle

4–D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

5–A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 p.

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5–A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 p.

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Section C. Sediment Analysis

5–C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 p.

Book 6. Modeling Techniques

Section A. Ground Water

6–A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 p.

6–A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 p.

6–A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 p.

6–A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 p.

6–A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L.J. Torak: USGS–TWRI book 6, chap. A5. 1993. 243 p.

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Section C. Computer Programs

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Book 8. Instrumentation

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8–A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

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8–B2. *Calibration and maintenance of vertical-axis type current meters,* by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9–A1. *National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

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9–A3. *National field manual for the collection of water-quality data: Cleaning of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.

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9–A7. *National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

9–A8. *National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.

9–A9. *National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.

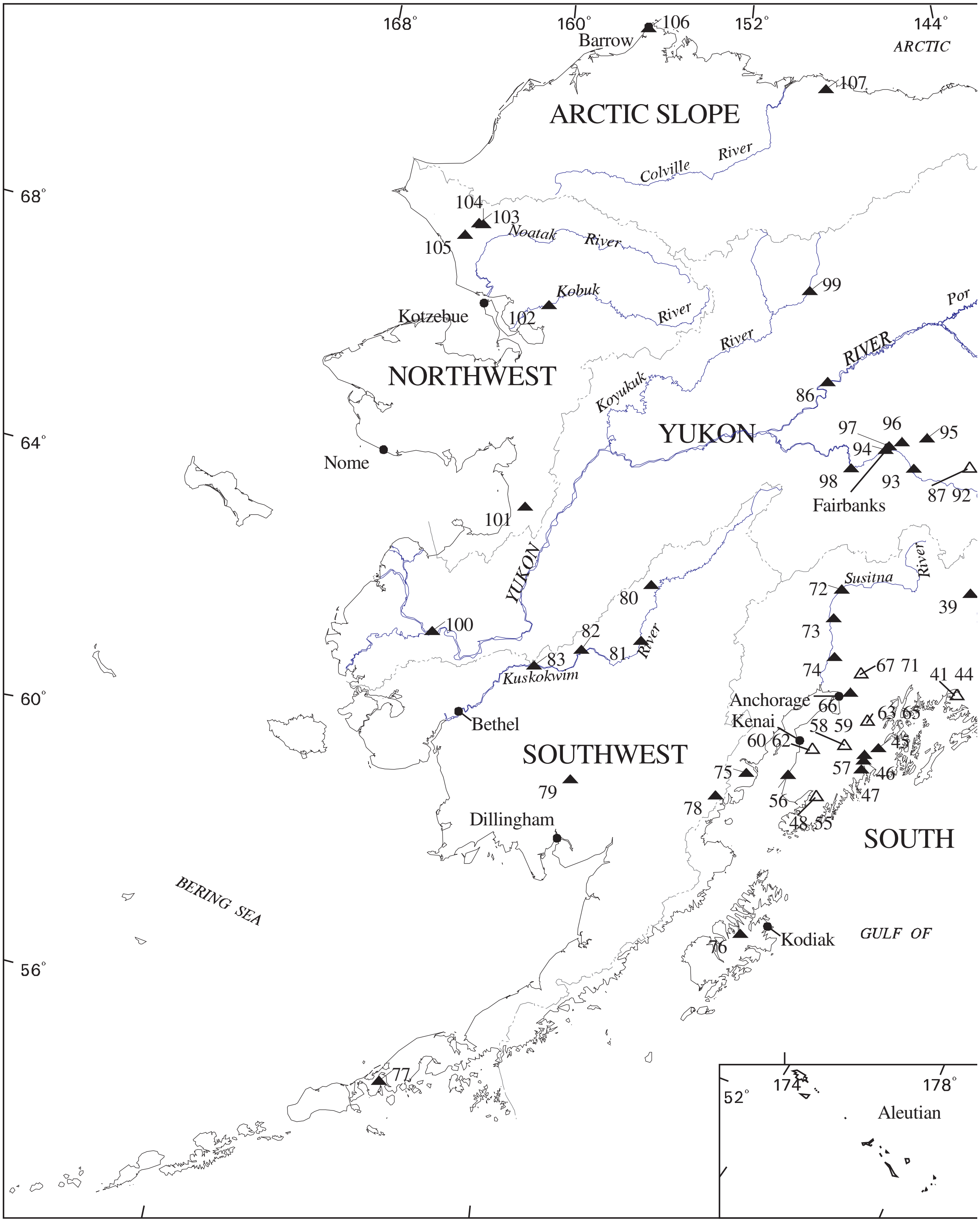
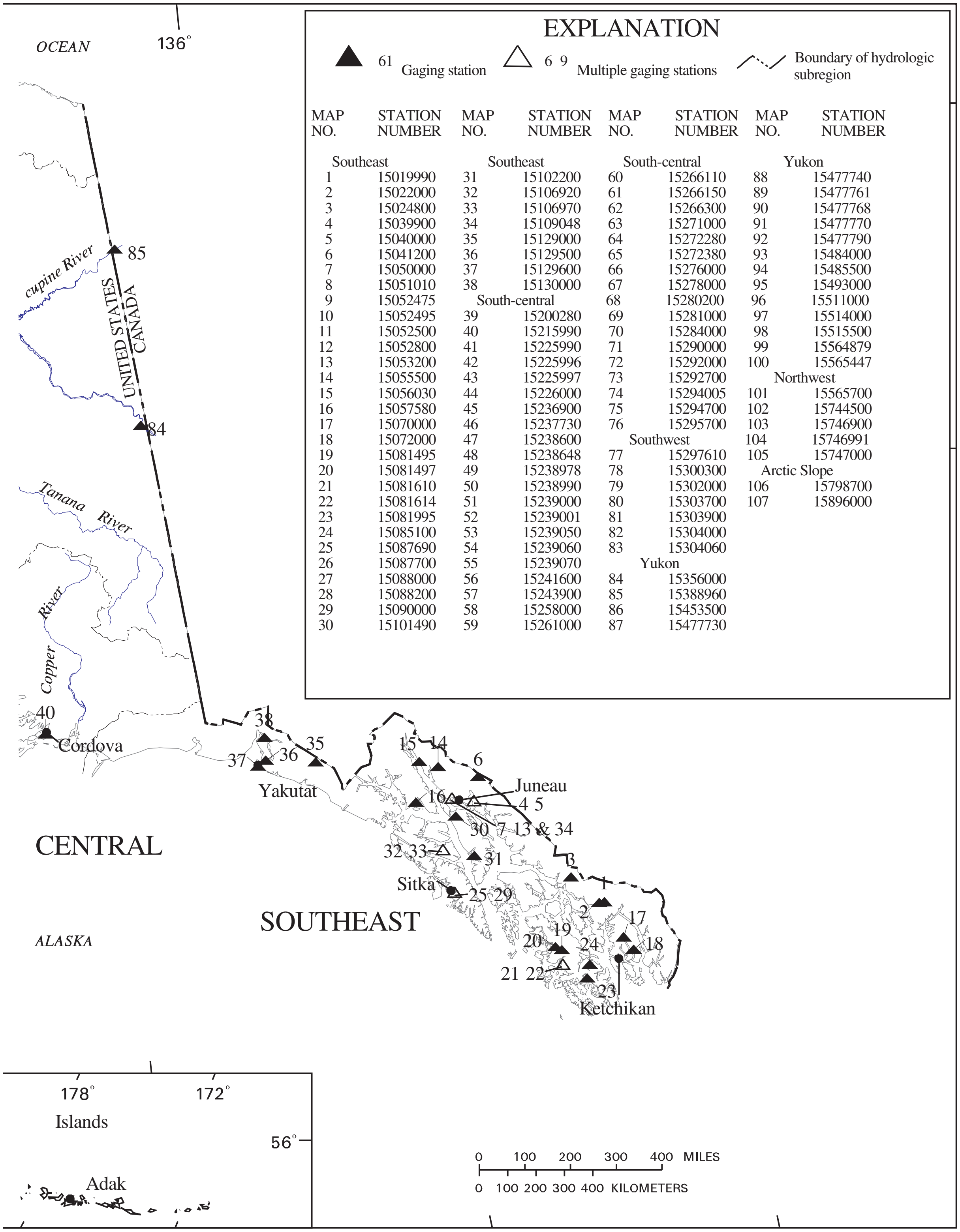


Figure 1. Locations of gaging stations



EXPLANATION

▲ 61 Gaging station

△ 6 9 Multiple gaging stations

Boundary of hydrologic subregion

MAP NO.	STATION NUMBER	MAP NO.	STATION NUMBER	MAP NO.	STATION NUMBER	MAP NO.	STATION NUMBER
Southeast		Southeast		South-central		Yukon	
1	15019990	31	15102200	60	15266110	88	15477740
2	15022000	32	15106920	61	15266150	89	15477761
3	15024800	33	15106970	62	15266300	90	15477768
4	15039900	34	15109048	63	15271000	91	15477770
5	15040000	35	15129000	64	15272280	92	15477790
6	15041200	36	15129500	65	15272380	93	15484000
7	15050000	37	15129600	66	15276000	94	15485500
8	15051010	38	15130000	67	15278000	95	15493000
9	15052475	South-central		68	15280200	96	15511000
10	15052495	39	15200280	69	15281000	97	15514000
11	15052500	40	15215990	70	15284000	98	15515500
12	15052800	41	15225990	71	15290000	99	15564879
13	15053200	42	15225996	72	15292000	100	15565447
14	15055500	43	15225997	73	15292700	Northwest	
15	15056030	44	15226000	74	15294005	101	15565700
16	15057580	45	15236900	75	15294700	102	15744500
17	15070000	46	15237730	76	15295700	103	15746900
18	15072000	47	15238600	Southwest		104	15746991
19	15081495	48	15238648	77	15297610	105	15747000
20	15081497	49	15238978	78	15300300	Arctic Slope	
21	15081610	50	15238990	79	15302000	106	15798700
22	15081614	51	15239000	80	15303700	107	15896000
23	15081995	52	15239001	81	15303900		
24	15085100	53	15239050	82	15304000		
25	15087690	54	15239060	83	15304060		
26	15087700	55	15239070	Yukon			
27	15088000	56	15241600	84	15356000		
28	15088200	57	15243900	85	15388960		
29	15090000	58	15258000	86	15453500		
30	15101490	59	15261000	87	15477730		

15019990 TYEE LAKE OUTLET NEAR WRANGELL

LOCATION.--Lat 56°12′00″, long 131°30′24″, in SE$\frac{1}{4}$ SW$\frac{1}{4}$ sec. 28, T. 65 S., R. 90 E. (Bradfield Canal A-5 quad), Hydrologic Unit 19010101, in Tongass National Forest, on left bank at outlet of Tyee Lake, 1.5 mi south of Bradfield Canal and 37 mi southeast of Wrangell, Alaska.

DRAINAGE AREA.--14.7 mi^2.

PERIOD OF RECORD.--October 1979 to September 1981 and June 1992 to current year. Records for November 1922 to September 1927 and August 1963 to October 1969, published as Tyee Creek at Mouth near Wrangell (station 15020100) are not equivalent owing to inflow between sites.

GAGE.--Water-stage recorder. Elevation of gage is 1,370 ft above sea level from topographic map. Prior to June 9, 1992, at site 500 ft downstream at datum 13.66 ft lower.

REMARKS.--Records fair, except for estimated daily discharges and discharges below 10 ft^3/s, which are poor. Water for power generation is diverted from Tyee Lake and discharged into Bradfield Canal. Diversion to hydropower plant began February 1984, and is not included in the discharge records.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	488	10	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	328	115	363
2	376	11	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	310	106	354
3	289	12	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	9.7	277	91	301
4	225	13	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	95	247	75	242
5	172	10	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	190	241	61	189
6	132	7.3	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	224	230	50	146
7	112	5.1	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	234	210	45	117
8	133	3.6	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	236	200	85	123
9	130	2.4	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	271	205	199	179
10	128	1.7	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	326	208	208	344
11	113	2.5	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	330	217	185	347
12	142	2.4	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	319	203	166	297
13	144	2.4	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	318	198	231	239
14	117	7.4	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	348	227	236	189
15	107	9.9	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	392	212	206	209
16	134	9.2	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	399	206	171	330
17	116	7.4	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	368	239	138	484
18	127	5.4	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	353	249	110	497
19	145	4.1	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	324	239	86	466
20	129	5.1	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	288	225	66	382
21	109	9.8	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	256	211	52	395
22	90	15	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	243	210	68	543
23	68	14	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	262	207	257	469
24	49	11	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	311	213	300	371
25	33	7.5	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	401	219	381	295
26	23	4.5	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	450	208	542	235
27	17	2.1	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	408	188	553	196
28	13	0.65	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	351	188	549	179
29	15	e0.00	e0.00	e0.00	---	e0.00	e0.00	e0.00	326	177	446	152
30	13	e0.00	e0.00	e0.00	---	e0.00	e0.00	e0.00	330	157	353	123
31	10	---	e0.00	e0.00	---	e0.00	---	e0.00	---	134	356	---
TOTAL	3899	196.45	0.00	0.00	0.00	0.00	0.00	0.00	8362.70	6783	6487	8756
MEAN	126	6.55	0.000	0.000	0.000	0.000	0.000	0.000	279	219	209	292
MAX	488	15	0.00	0.00	0.00	0.00	0.00	0.00	450	328	553	543
MIN	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	134	45	117
AC-FT	7730	390	0.00	0.00	0.00	0.00	0.00	0.00	16590	13450	12870	17370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	161	46.1	8.92	1.07	0.027	0.000	3.18	68.4	266	190	121	182
MAX	264	108	38.4	6.37	0.28	0.000	24.8	247	367	305	216	298
(WY)	2000	1993	1998	2001	1994	1993	1993	1993	1999	1999	2000	2001
MIN	102	5.10	0.000	0.000	0.000	0.000	0.000	0.000	176	55.2	28.3	41.5
(WY)	1995	1997	1995	1993	1993	1993	1994	2002	1994	1998	1994	1993

\# Record for 1980 & 1981 water years, prior to diversion of 1984, not included. See Period Of Record
e Estimated

15019990 TYEE LAKE OUTLET NEAR WRANGELL—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002#	
ANNUAL TOTAL	38732.00		34484.15			
ANNUAL MEAN	106		94.5		87.1	
HIGHEST ANNUAL MEAN					113	2001
LOWEST ANNUAL MEAN					56.5	1995
HIGHEST DAILY MEAN	628	Sep 23	553	Aug 27	710	Oct 27 1993
LOWEST DAILY MEAN	a0.00	Jan 1	b0.00	Nov 29	c0.00	Dec 30 1992
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 22	0.00	Nov 29	0.00	Dec 30 1992
MAXIMUM PEAK FLOW			595	Aug 27	d975	Oct 26 1993
MAXIMUM PEAK STAGE			25.60	Aug 27	28.62	Oct 26 1993
INSTANTANEOUS LOW FLOW			0.00	Nov 29	0.00	Dec 30 1992
ANNUAL RUNOFF (AC-FT)	76820		68400		63080	
10 PERCENT EXCEEDS	339		325		275	
50 PERCENT EXCEEDS	9.8		0.00		17	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

PRIOR TO DIVERSION OF 1984

SUMMARY STATISTICS	WATER YEARS 1980 - 1981	
ANNUAL MEAN	179	
HIGHEST ANNUAL MEAN	213	1981
LOWEST ANNUAL MEAN	146	1980
HIGHEST DAILY MEAN	1690	Oct. 7 1980
LOWEST DAILY MEAN	f1.4	Apr. 2 1980
ANNUAL SEVEN-DAY MINIMUM	2.0	Mar.31 1980
INSTANTANEOUS PEAK FLOW	1910	Oct. 7 1980
INSTANTANEOUS PEAK STAGE	12.72	Oct. 7 1980
ANNUAL RUNOFF (AC-FT)	130000	
10 PERCENT EXCEEDS	457	
50 PERCENT EXCEEDS	86	
90 PERCENT EXCEEDS	11	

\# Record for 1980 & 1981 water years, prior to diversion of 1984, not included. See Period of Record
a Jan. 01 to Jan. 3 and Jan. 22 to May 10
b Nov. 29 to Jun. 1
c No flow many days during winter months most years
d From rating curve extended above 400 ft^3/s
f Apr. 2-3, 1980

15022000 HARDING RIVER NEAR WRANGELL

LOCATION.--Lat 56°12′48″, long 131°38′12″, in SW$\frac{1}{4}$ SW$\frac{1}{4}$ sec. 22, T. 65 S., R. 89 E. (Bradfield Canal A-5 quad), Hydrologic Unit 19010101, in Tongass National Forest, on right bank 1 mi upstream from mouth on north shore of Bradfield Canal, 4 mi downstream from Fall Lake, and 34 mi southeast of Wrangell.

DRAINAGE AREA.--67.4 mi^2.

PERIOD OF RECORD.--August 1951 to current year.

REVISED RECORDS.--WSP 1640: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above sea level, by barometer. Prior to September 30, 1960, at site 300 ft upstream at datum 0.12 ft lower. October 1, 1960, to August 23, 1975, at prior site and present datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES Satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug 09	0300	6340	10.46	Aug 31	1215	4090	8.88
Aug 13	0430	5450	9.85	Sep 10	0045	4490	9.17
Aug 23	1015	*9150	*12.28	Sep 16	2045	5900	10.16
Aug 25	2045	5870	10.14	Sep 21	2130	8030	11.57

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2700	e700	e105	245	e100	e78	80	976	1620	1850	802	2380
2	e2000	e800	e100	226	e100	e78	73	774	1400	2030	887	1720
3	e1200	e1000	e95	319	e115	e95	69	556	1530	1400	753	995
4	e750	e780	e88	351	e130	e140	66	409	2450	1280	696	716
5	e500	e570	e120	263	e120	e120	63	337	2390	1820	675	549
6	e320	e460	e115	583	e115	e110	60	286	1580	1590	669	449
7	e440	e540	e175	1030	e105	e100	59	268	1200	1190	802	445
8	e550	e560	e210	818	e100	e90	58	266	1100	1300	2450	1310
9	e510	e550	e170	533	e120	e85	57	265	1700	1560	4400	1760
10	e660	e390	e150	560	e140	e80	66	364	2090	1470	1880	3380
11	e560	e420	e140	414	e160	e75	76	582	1510	1550	1050	1560
12	e800	e380	e140	386	e190	e73	81	1040	1340	1160	1190	858
13	e680	e340	e130	303	209	e69	114	1200	1520	1300	4180	591
14	e550	e800	e130	239	156	e65	189	1300	2260	2160	1870	464
15	e700	e540	e120	210	164	e64	268	807	2440	1260	1060	1770
16	e800	e800	e120	216	177	e60	205	765	2070	1280	772	3510
17	e650	e520	e110	183	150	e60	177	1110	1570	1900	649	4660
18	e720	e360	e105	171	122	e60	174	936	1650	1550	604	4000
19	e650	e300	e105	183	110	e59	212	960	1390	1280	545	2420
20	e550	e440	e100	172	103	e59	290	1590	1250	1120	489	1630
21	e500	e370	e98	141	91	e59	371	1920	1100	1100	690	3670
22	e460	e600	e110	134	e84	e58	381	1620	1190	1400	2070	4060
23	e420	e460	e270	e122	e75	e58	271	1500	1620	1420	6190	1920
24	e410	e350	e550	e120	e66	e57	232	1210	1790	1610	2000	1050
25	e400	e280	e660	e110	e70	e86	211	1290	2220	1770	3460	718
26	e520	e210	e580	e100	e95	e120	208	1600	2310	1190	4250	586
27	e460	e170	e540	e90	e88	e140	210	1770	1690	1050	3940	940
28	e800	e140	e520	e85	e80	128	273	2440	1220	1710	3080	1050
29	e1100	e125	513	e83	---	106	445	2930	1500	1300	1670	734
30	e800	e115	379	e80	---	95	675	2500	1530	957	1030	507
31	e600	---	297	e84	---	87	---	1690	---	824	3200	---
TOTAL	22760	14070	7045	8554	3335	2614.0	5714	35261	50230	44381	58003	50402
MEAN	734.2	469.0	227.3	275.9	119.1	84.32	190.5	1137	1674	1432	1871	1680
MAX	2700	1000	660	1030	209	140	675	2930	2450	2160	6190	4660
MIN	320	115	88	80	66	57	57	265	1100	824	489	445
MED	600	450	130	210	113	78	183	1040	1580	1400	1060	1180
AC-FT	45140	27910	13970	16970	6610	5180	11330	69940	99630	88030	115000	99970
CFSM	10.9	6.96	3.37	4.09	1.77	1.25	2.83	16.9	24.8	21.2	27.8	24.9
IN.	12.56	7.77	3.89	4.72	1.84	1.44	3.15	19.46	27.72	24.50	32.01	27.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY) #

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1079	496.3	337.9	252.5	236.3	201.6	359.2	918.3	1389	1344	1145	1146
MAX	2152	1252	1065	819	655	510	733	1357	1896	1878	1871	2039
(WY)	1962	1970	1990	1981	1954	1986	1994	1956	1996	1972	2002	2001
MIN	610	118	102	50.6	46.7	54.8	90.0	624	960	861	601	507
(WY)	1970	1986	1984	1969	1969	1969	1954	1977	1981	1995	1993	1965

e Estimated

15022000 HARDING RIVER NEAR WRANGELL—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002#	
ANNUAL TOTAL	295251		302369.0			
ANNUAL MEAN	808.9		828.4		746.2	
HIGHEST ANNUAL MEAN					921	1992
LOWEST ANNUAL MEAN					558	1995
HIGHEST DAILY MEAN	3900	Sep 23	6190	Aug 23	11400	Oct 14 1961
LOWEST DAILY MEAN	80	Feb 23	a57	Mar 24	b35	Jan 23 1969
ANNUAL SEVEN-DAY MINIMUM	89	Feb 20	59	Mar 18	35	Jan 23 1969
MAXIMUM PEAK FLOW			9150	Aug 23	c15300	Oct 26 1993
MAXIMUM PEAK STAGE			12.28	Aug 23	d16.22	Oct 14 1961
INSTANTANEOUS LOW FLOW			f		35	Jan 23 1969
ANNUAL RUNOFF (AC-FT)	585600		599700		540600	
ANNUAL RUNOFF (CFSM)	12.0		12.3		11.1	
ANNUAL RUNOFF (INCHES)	162.96		166.89		150.43	
10 PERCENT EXCEEDS	1770		1910		1610	
50 PERCENT EXCEEDS	550		533		543	
90 PERCENT EXCEEDS	120		84		110	

\# See Period of Record; partial years used in monthly statistics
a Mar. 24 & Apr. 9
b From Jan. 23 to Feb. 11, 1969
c From rating curve extended above 5,000 ft^3/s on basis of slope-area measurement at gage height,13.90 ft
d At site then in use
f Not determined,see lowest daily mean

15024800 STIKINE RIVER NEAR WRANGELL
(International gaging station)

LOCATION.--Lat 56°42′29″, long 132°07′49″, in SE$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 35, T. 59 S., R. 84 E. (Petersburg C-1 quad), Hydrologic Unit 19010201, on right bank about 10 mi upstream from mouth near Point Rothsay, 11 mi west of Alaska-British Columbia boundary, and 18 mi northeast of Wrangell.

DRAINAGE AREA.--19,920 mi^2, approximately.

PERIOD OF RECORD.--July 1976 to current year.

REVISED RECORDS.--WDR AK-78-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 25 ft above sea level, from topographic map.

REMARKS.--Records good, except for estimated daily discharges that are tidally affected, Oct.15 to 19, Oct. 30 to Nov.5, Nov. 11 to 19, and Apr. 23 to 30 which are fair, and estimated daily discharges during periods of ice effect, Nov. 26 to Apr. 18 which are poor. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80000	e20400	e9100	e8400	e6400	e7000	e5900	21300	103000	115000	87800	145000
2	62200	e21800	e8800	e8300	e6400	e7500	e5700	27700	97500	114000	87700	128000
3	54400	e19700	e8500	e8100	e6400	e8500	e5600	27700	95600	118000	83300	114000
4	47900	e22700	e9300	e8000	e6400	e8400	e5500	23000	105000	113000	77000	103000
5	42900	e20100	e9800	e8000	e6300	e8100	e5400	19800	120000	109000	75800	87400
6	40900	18200	e10700	e8000	e6200	e7500	e5300	17700	122000	111000	77500	77900
7	40100	16400	e11400	e8000	e6100	e6900	e5300	16400	113000	108000	82100	71900
8	40800	15500	e13200	e8100	e6000	e6500	e5300	15800	101000	109000	99400	71600
9	39700	15300	e14300	e8200	e5900	e6000	e5300	15800	106000	123000	132000	75500
10	39700	15500	e14200	e8500	e5900	e5800	e5300	16600	126000	133000	127000	94200
11	36600	e15900	e13700	e8400	e6000	e5700	e5300	18800	140000	141000	108000	86800
12	43300	e15500	e12900	e8200	e8200	e5700	e5600	24100	144000	134000	99500	70200
13	41700	e15100	e11800	e7900	e9400	e5700	e5900	29000	142000	120000	138000	61500
14	34000	e16600	e10700	e7900	e9800	e5700	e6500	33600	146000	116000	154000	54700
15	e30700	e17000	e9700	e8000	e9900	e5600	e6700	35000	164000	109000	130000	57300
16	e34400	e17300	e9000	e7700	e9900	e5500	e6800	36800	183000	113000	103000	70500
17	e32800	e16100	e8500	e7400	e9800	e5500	e6900	42400	187000	122000	85300	90600
18	e39400	e14300	e8200	e7600	e9700	e5400	e7200	45400	187000	132000	79200	94500
19	e43700	e13200	e8100	e7200	e9000	e5400	7780	46800	175000	134000	74200	93800
20	38500	13000	e8100	e7100	e8600	e5400	8240	55100	155000	131000	68000	77100
21	32800	13000	e8200	e7000	e8200	e5500	9220	70300	140000	121000	67500	74900
22	29700	13900	e8300	e7000	e7700	e5500	9940	81300	130000	127000	82500	95600
23	26700	14000	e8500	e6900	e7400	e5300	e9630	85900	128000	138000	144000	78600
24	24800	13500	e8600	e6900	e7000	e5300	e8940	82700	132000	151000	180000	73300
25	23500	12000	e8800	e6800	e7200	e5500	e8580	82200	136000	159000	161000	69700
26	22000	e11000	e8800	e6700	e7500	e5700	e8550	89800	143000	152000	189000	68400
27	21500	e10100	e8600	e6600	e7600	e5800	e8580	101000	139000	131000	209000	71100
28	20700	e9800	e8600	e6500	e7000	e5900	e8910	111000	128000	119000	226000	77300
29	22400	e9700	e8600	e6500	---	e6100	e10500	120000	122000	105000	203000	74100
30	e22100	e9500	e8500	e6500	---	e6000	e14400	119000	124000	92700	148000	64600
31	e20800	---	e8500	e6500	---	e6000	---	110000	---	89000	135000	---
TOTAL	1130700	456100	304000	232900	211900	190400	218770	1622000	4034100	3789700	3713800	2473100
MEAN	36470	15200	9806	7513	7568	6142	7292	52320	134500	122200	119800	82440
MAX	80000	22700	14300	8500	9900	8500	14400	120000	187000	159000	226000	145000
MIN	20700	9500	8100	6500	5900	5300	5300	15800	95600	89000	67500	54700
MED	36600	15400	8800	7700	7300	5700	6750	36800	131000	120000	103000	76300
AC-FT	2243000	904700	603000	462000	420300	377700	433900	3217000	8002000	7517000	7366000	4905000
CFSM	1.83	0.76	0.49	0.38	0.38	0.31	0.37	2.63	6.75	6.14	6.01	4.14
IN.	2.11	0.85	0.57	0.43	0.40	0.36	0.41	3.03	7.53	7.08	6.94	4.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY) #

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	57390	24700	13910	11490	9303	10140	16490	66470	135100	134300	108000	80310
MAX	113300	58280	25780	39450	19080	42340	31960	119100	199900	163800	134200	128600
(WY)	1987	1979	1990	1981	1977	1992	1992	1993	1992	1985	1977	1981
MIN	30590	10010	5593	5958	5111	4719	7292	32260	103400	109100	76770	50760
(WY)	1986	1986	1997	1978	1999	1978	2002	1982	1978	1983	1995	1986

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1976 - 2002	
ANNUAL TOTAL	18705440		18377470			
ANNUAL MEAN	51250		50350		55810	
HIGHEST ANNUAL MEAN					72870	1981
LOWEST ANNUAL MEAN					42100	1978
HIGHEST DAILY MEAN	201000	Jul 22	226000	Aug 28	324000	Sep 23 1994
LOWEST DAILY MEAN	a7500	Feb 23	b5300	Mar 23	4000	Feb 12 1988
ANNUAL SEVEN-DAY MINIMUM	7670	Feb 19	5310	Apr 5	4090	Mar 8 1999
MAXIMUM PEAK FLOW			229000	Aug 28	351000	Sep 23 1994
MAXIMUM PEAK STAGE			25.70	Aug 28	30.60	Sep 23 1994
ANNUAL RUNOFF (AC-FT)	37100000		36450000		40430000	
ANNUAL RUNOFF (CFSM)	2.57		2.53		2.80	
ANNUAL RUNOFF (INCHES)	34.93		34.32		38.07	
10 PERCENT EXCEEDS	137000		132000		136000	
50 PERCENT EXCEEDS	21900		19700		31400	
90 PERCENT EXCEEDS	8500		6000		7200	

\# See Period of Record; partial years used in monthly statistics
a Feb. 23 to 24 and Mar. 24 to 25
b Mar. 23 to 24 and Apr. 6 to 11
e Estimated

15039900 DOROTHY LAKE OUTLET NEAR JUNEAU

LOCATION.--Lat 58°14′56″, long 133°58′54″, in NE$\frac{1}{4}$ NW$\frac{1}{4}$ sec. 9, T. 42 S., R. 70 E.(Taku River A-6 quad), Hydrologic Unit 19010301, City and Borough of Juneau, in Tongass National Forest, on right bank 3 mi upstream from mouth at Taku Inlet, and 16.4 mi east of Juneau.

DRAINAGE AREA.--11.0 mi^2.

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,410.78 ft above sea level.

REMARKS.--Records fair, except for discharges under 50 ft^3/s and estimated discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug 09	1400	659	11.93	Aug 23	0915	615	11.80
Aug 13	0045	716	12.09	Aug 28	1500	*818	*12.36

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	33	e15	e23	e15	e16	e5.5	e8.4	222	268	219	500
2	212	33	e15	e23	e16	e18	e5.4	e10	213	343	201	405
3	174	37	e15	e20	e16	e20	e5.2	e11	224	339	181	317
4	144	38	e15	e19	e16	e18	e5.0	e11	249	312	165	250
5	125	34	e15	e20	e16	e16	e4.8	e10	279	295	154	201
6	131	30	e15	e22	e14	e14	e4.7	e9.8	268	262	149	167
7	123	26	e16	e23	e13	e13	e4.6	e9.4	238	235	214	173
8	122	26	e18	e24	e12	e12	e4.4	e9.2	223	222	457	181
9	118	28	17	e25	e13	e11	e4.5	e9.3	244	228	646	189
10	118	27	18	e26	e19	e10	e4.5	e12	318	229	567	187
11	108	26	17	e24	e20	e10	e4.4	e13	320	238	444	182
12	112	23	18	e23	e28	e10	e4.4	e15	278	237	550	170
13	106	20	18	e23	e28	e10	e4.4	e18	248	226	675	148
14	91	20	17	e21	e29	e10	e4.3	e22	248	252	560	127
15	78	21	17	e20	e34	e9.6	e4.5	e24	280	259	424	146
16	79	21	e16	e20	e42	e8.8	e4.3	e25	303	242	319	158
17	71	21	e15	e18	e36	e8.1	e4.3	29	312	237	246	164
18	76	20	e15	e19	e33	e7.5	e4.4	33	312	241	210	220
19	86	18	e14	e19	e30	e7.3	e4.3	41	297	228	190	256
20	80	18	e14	e18	e29	e7.0	e4.8	53	289	216	179	247
21	76	18	15	e16	e28	e6.5	e5.4	76	262	222	292	253
22	68	19	15	e15	e25	e5.8	e5.0	91	236	268	392	224
23	61	19	e16	e16	e22	e5.5	e5.6	104	232	296	582	197
24	54	17	e17	e17	e19	e5.4	e5.4	110	245	372	512	197
25	50	e17	e18	e16	e18	e5.3	e5.3	119	314	429	496	183
26	44	e16	e19	e15	e18	e6.3	e5.2	128	372	410	529	171
27	44	e16	e21	e14	e18	e7.3	e5.1	139	361	372	660	177
28	40	e16	e22	e15	e17	e8.0	e5.2	177	317	368	782	174
29	43	e16	e24	e15	---	e7.7	e5.4	239	285	339	745	156
30	40	e16	e24	e15	---	e7.0	e6.2	278	265	285	629	132
31	36	---	e24	e16	---	e6.0	---	250	---	246	568	---
TOTAL	2940	690	535	600	624	307.1	146.5	2084.1	8254	8716	12937	6252
MEAN	94.84	23.00	17.26	19.35	22.29	9.906	4.883	67.23	275.1	281.2	417.3	208.4
MAX	230	38	24	26	42	20	6.2	278	372	429	782	500
MIN	36	16	14	14	12	5.3	4.3	8.4	213	216	149	127
AC-FT	5830	1370	1060	1190	1240	609	291	4130	16370	17290	25660	12400
CFSM	8.62	2.09	1.57	1.76	2.03	0.90	0.44	6.11	25.0	25.6	37.9	18.9
IN.	9.94	2.33	1.81	2.03	2.11	1.04	0.50	7.05	27.91	29.48	43.75	21.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	158.9	48.02	35.00	21.51	20.67	17.30	18.82	86.17	217.5	271.1	263.7	260.7
MAX	243	88.7	80.8	38.1	40.8	59.2	36.9	140	275	364	417	387
(WY)	1988	1994	2000	2000	1993	1992	1994	1993	2002	2000	2002	1991
MIN	90.9	21.2	16.9	9.25	11.3	4.65	4.88	35.5	181	210	194	177
(WY)	1993	1996	1995	1997	1998	1989	2002	2001	1996	1993	1995	1992

e Estimated

15039900 DOROTHY LAKE OUTLET NEAR JUNEAU—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1987 - 2002	
ANNUAL TOTAL	36567.8		44085.7			
ANNUAL MEAN	100.2		120.8		118.8	
HIGHEST ANNUAL MEAN					141	1990
LOWEST ANNUAL MEAN					97.6	1996
HIGHEST DAILY MEAN	438	Jul 8	782	Aug 28	915	Sep 11 1995
LOWEST DAILY MEAN	9.8	Apr 17	a4.3	Apr 14	4.2	Mar 13 1989
ANNUAL SEVEN-DAY MINIMUM	10	Apr 15	4.4	Apr 13	4.2	Mar 10 1989
MAXIMUM PEAK FLOW			818	Aug 28	b990	Sep 10 1995
MAXIMUM PEAK STAGE			12.36	Aug 28	13.05	Sep 10 1995
INSTANTANEOUS LOW FLOW					4.2	Mar 10 1989
ANNUAL RUNOFF (AC-FT)	72530		87440		86080	
ANNUAL RUNOFF (CFSM)	9.11		11.0		10.8	
ANNUAL RUNOFF (INCHES)	123.67		149.09		146.77	
10 PERCENT EXCEEDS	268		313		286	
50 PERCENT EXCEEDS	29		28		54	
90 PERCENT EXCEEDS	12		6.4		12	

a Apr. 14,16,17, and 19

b From rating curve extended above 350 ft^3/s

15040000 DOROTHY CREEK NEAR JUNEAU

LOCATION.--Lat 58°13′40″, long 134°02′25″, in NW$^1/_4$ SW$^1/_4$ sec.18, T. 42 S., R. 70 E.(Juneau A-1 quad), Hydrologic Unit 19010301, City and Borough of Juneau, in Tongass National Forest, on right bank 0.7 mi downstream from Bart lake, 0.8 mi upstream from the mouth at Taku Inlet, and 14.4 mi east of Juneau.

DRAINAGE AREA.--15.2 mi^2.

PERIOD OF RECORD.--October 1929 to October 1941, September 1942 to December 1943, June 1944 to September 1945, October 1945 to September 1967, October 2001 to current year. Prior to October 1945 monthly discharge only.

GAGE.--Water-stage recorder. Elevation of gage is 350 ft above sea level (from topographic map). Prior to September 1937 at site 100 ft upstream from mouth at different datum and published as Dorothy Creek at Taku Inlet.

REMARKS.--Records fair except estimated daily discharges, which are poor. Dorothy Lake (area 952 acres) lies at an elevation of 2,423 ft, less than 4 mi upstream from mouth; Lieuy Lake (area 80 acres) lies at an elevation of 1,711 ft; and Bart Lake (area 150 acres) lies at an elevation of 986 ft.

COOPERATION.--Records prior to October 1945 provided by U.S. Forest Service.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e300	e52	e22	34	24	e25	13	19	265	310	291	e620
2	e290	e55	e20	34	24	e27	13	18	268	354	256	e530
3	e260	e57	e19	31	23	e29	13	18	271	376	229	e400
4	e220	e58	e17	30	24	e25	13	18	282	371	206	e315
5	e190	e55	e17	33	23	e24	14	18	302	361	195	e250
6	e175	e48	e18	34	22	e24	14	18	308	338	183	e200
7	e170	e44	e21	34	21	e23	13	18	304	313	184	e210
8	e170	e42	e23	35	21	e22	12	19	295	290	256	e220
9	e165	e42	e22	36	23	e21	13	19	292	276	466	e225
10	e160	e43	e24	37	22	e20	14	23	334	267	e612	e230
11	e150	e42	e23	38	22	e19	13	25	355	267	e530	e220
12	e152	e38	e22	35	27	e19	12	28	343	263	e600	e200
13	e148	e33	e21	33	26	e18	14	32	324	258	e700	e180
14	e130	e32	e20	33	28	e18	14	34	312	269	e720	e160
15	e120	e32	e20	33	31	e18	12	36	308	274	e570	e170
16	e110	e33	e20	32	34	e17	12	40	317	273	e380	e185
17	e107	e32	e20	31	35	e17	12	46	327	269	e340	e210
18	e105	e31	e19	33	37	e17	12	53	336	266	e270	e250
19	e120	e28	e18	34	38	e16	12	68	339	262	e240	e300
20	e116	e29	e17	30	36	e15	15	89	338	253	e220	e290
21	e110	e29	e17	26	e32	e14	14	108	325	250	e300	e300
22	e100	e30	20	26	e31	e13	13	122	305	259	e370	e280
23	e93	e30	22	29	e29	14	13	135	288	270	e500	e240
24	e84	e29	26	26	e28	13	13	145	279	302	e650	e240
25	e75	e28	28	24	e27	15	13	155	298	350	e580	e225
26	e70	e27	29	24	e27	14	13	164	332	390	e630	e210
27	e66	e26	31	23	e27	13	14	174	352	398	e700	e210
28	e62	e25	33	24	e26	13	15	192	350	399	e900	e208
29	e64	e24	34	25	---	13	17	219	336	391	e850	e195
30	e60	e23	34	26	---	13	19	242	320	363	e780	e165
31	e57	---	34	24	---	13	---	257	---	327	e700	---
TOTAL	4199	1097	711	947	768	562	404	2552	9405	9609	14408	7638
MEAN	135.5	36.57	22.94	30.55	27.43	18.13	13.47	82.32	313.5	310.0	464.8	254.6
MAX	300	58	34	38	38	29	19	257	355	399	900	620
MIN	57	23	17	23	21	13	12	18	265	250	183	160
MED	120	32	21	32	27	17	13	40	315	290	466	222
AC-FT	8330	2180	1410	1880	1520	1110	801	5060	18650	19060	28580	15150
CFSM	8.91	2.41	1.51	2.01	1.80	1.19	0.89	5.42	20.6	20.4	30.6	16.8
IN.	10.28	2.68	1.74	2.32	1.88	1.38	0.99	6.25	23.02	23.52	35.26	18.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	225.8	107.7	49.06	27.41	22.75	22.75	26.66	92.04	244.6	306.5	310.9	279.9
MAX	455	355	113	59.3	70.9	85.9	62.3	140	336	419	465	432
(WY)	1937	1950	1937	1957	1931	1947	1943	1946	1944	1961	1961	1967
MIN	97.5	31.7	14.3	10.0	10.0	10.2	13.0	51.8	150	241	198	142
(WY)	1951	1951	1951	1934	1935	1933	1967	1964	1933	1954	1954	1964

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1930 - 2002#	
ANNUAL TOTAL	52300			
ANNUAL MEAN	143.3		143.3	
HIGHEST ANNUAL MEAN			184	1937
LOWEST ANNUAL MEAN			108	1933
HIGHEST DAILY MEAN	900	Aug 28	1690	Nov 3 1949
LOWEST DAILY MEAN	a12	Apr 8	6.0	Mar 23 1933
ANNUAL SEVEN-DAY MINIMUM	13	Apr 12	6.6	Mar 23 1933
MAXIMUM PEAK FLOW	b		c1780	Nov 3 1949
MAXIMUM PEAK STAGE			5.85	Nov 3 1949
INSTANTANEOUS LOW FLOW	d		f6.0	Mar 23 1933
ANNUAL RUNOFF (AC-FT)	103700		103800	
ANNUAL RUNOFF (CFSM)	9.43		9.43	
ANNUAL RUNOFF (INCHES)	128.00		128.13	
10 PERCENT EXCEEDS	339		326	
50 PERCENT EXCEEDS	38		92	
90 PERCENT EXCEEDS	15		16	

\# See Period of Record; partial years used in monthly statistics
a April 8, 12, 15-19
b Not determined; see highest daily mean.
c From a rating curve extended above 560 ft^3/s.
d Not determined; see lowest daily mean.
e Estimated
f March 23, 25 and 28, 1933.

15041200 TAKU RIVER NEAR JUNEAU
(International gaging station)

LOCATION.--Lat 58°32′19″, long 133°42′00″, in NE$^1/_4$ NW$^1/_4$ sec. 33, T. 38 S., R. 71 E. (Taku River C-6 quad), Hydrologic Unit 19010301, City and Borough of Juneau, in Tongass National Forest, on left bank, 1.5 mi upstream from Wright River, and 31 mi northeast of Juneau.

DRAINAGE AREA.--6,600 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1987 to current year.

REVISED RECORD.--WDR AK-98-1, 1987-1997; WDR AK-00-1 1989-90 (M), 1992-95 (M).

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50,000 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 17	0030	51,700	39.73	Aug 17	1400	*a74,600	*41.99
Aug 13	1700	55,500	40.19				

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11700	4370	e2250	e2080	e1600	e1720	e1420	6020	29200	24700	20900	31200
2	12100	4320	e2150	e2020	e1600	e1800	e1390	8340	26900	26200	20900	27200
3	11000	4480	e2100	e2000	e1590	e1890	e1360	7610	26700	26000	19600	24900
4	10200	4570	e2100	e1980	e1550	e1810	e1330	6270	28700	24600	18100	22800
5	10700	4210	e2300	e1960	e1550	e1780	e1310	5340	28900	23600	18200	19600
6	12000	3690	e2500	e1980	e1500	e1700	e1300	4680	27900	22000	19600	18100
7	14000	3440	e2600	e1990	e1490	e1610	e1300	4430	25000	21500	22400	17400
8	19100	3450	e2900	e2000	e1420	e1550	e1300	4340	24800	22800	30800	16300
9	26000	3700	e3300	e2050	e1390	e1500	e1300	4450	30200	25400	32700	15400
10	13000	3890	e3500	e2110	e1430	e1450	e1300	4680	32800	25400	30300	14500
11	9370	3710	e3400	e2080	e1480	e1420	e1300	5180	32300	23200	26500	14100
12	9160	3540	e3300	e2010	e1900	e1400	e1320	5650	29300	22100	31200	13300
13	8820	3490	e3100	e1980	e2220	e1390	e1400	6610	27800	22100	52600	12300
14	7830	3540	e2800	e1930	e2290	e1400	1580	8640	29700	24000	46800	11300
15	7210	3440	e2600	e1990	e2300	e1380	1640	10100	36700	25200	42600	11100
16	7200	3330	e2400	e1880	e2360	e1370	1680	10500	46100	24600	53500	11200
17	7230	3220	e2200	e1820	e2300	e1360	1660	11900	44200	24500	69200	11100
18	8370	3060	e2100	e1880	e2200	e1350	1700	14200	37100	27200	30700	12200
19	9660	3040	e2000	e1790	e2150	e1350	1810	17800	33600	26900	21100	13700
20	8490	3070	e2000	e1760	e2090	e1340	2130	22100	30100	26000	19500	12900
21	7550	3130	e2000	e1730	e2000	e1340	2530	26700	27200	25500	23000	12400
22	7030	3240	e2000	e1720	e1920	e1360	2590	28100	25100	26600	30900	11800
23	6510	3270	e2050	e1700	e1800	e1300	2470	27300	25100	29300	42700	11000
24	6040	3060	e2100	e1690	e1720	e1310	2340	27300	27300	33300	40500	11400
25	5540	2970	e2200	e1670	e1700	e1330	2330	29000	28000	36000	35100	12100
26	5140	e2700	e2200	e1640	e1700	e1400	2350	32400	27200	32900	34400	12900
27	5010	e2500	e2150	e1630	e1710	e1420	2340	35500	26500	29700	39000	14000
28	4730	e2400	e2150	e1620	e1720	e1450	2530	36700	24700	28000	46200	15000
29	4700	e2400	e2100	e1620	---	e1470	3050	39300	24000	24400	43900	13700
30	4640	e2300	e2100	e1620	---	e1480	4050	39200	25000	21000	36800	11800
31	4430	---	e2100	e1610	---	e1470	---	34100	---	20900	33500	---
TOTAL	284460	101530	74750	57540	50680	45900	56110	524440	888100	795600	1033200	456700
MEAN	9176	3384	2411	1856	1810	1481	1870	16920	29600	25660	33330	15220
MAX	26000	4570	3500	2110	2360	1890	4050	39300	46100	36000	69200	31200
MIN	4430	2300	2000	1610	1390	1300	1300	4340	24000	20900	18100	11000
AC-FT	564200	201400	148300	114100	100500	91040	111300	1040000	1762000	1578000	2049000	905900
CFSM	1.39	0.51	0.37	0.28	0.27	0.22	0.28	2.56	4.49	3.89	5.05	2.31
IN.	1.60	0.57	0.42	0.32	0.29	0.26	0.32	2.96	5.01	4.48	5.82	2.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY) #

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11490	4612	3348	2191	1937	2573	4274	19940	34280	31730	26500	19290
MAX	17250	8633	6613	4223	3682	10500	6815	33800	49280	41080	33330	26550
(WY)	1992	1994	2000	2000	1992	1992	1992	1993	1992	1992	2002	1994
MIN	6265	2488	1256	1125	1041	1359	1870	9652	23170	25040	18610	11180
(WY)	1997	1997	1997	1988	1999	1991	2002	2001	1995	1996	1995	1992

\# See Period of Record; partial years used in monthly statistics
e Estimated

15041200 TAKU RIVER NEAR JUNEAU—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002#	
ANNUAL TOTAL	4473960		4369010			
ANNUAL MEAN	12260		11970		13580	
HIGHEST ANNUAL MEAN					16820	1992
LOWEST ANNUAL MEAN					10800	1996
HIGHEST DAILY MEAN	67600	Aug 10	69200	Aug 17	93100	Jul 26 2000
LOWEST DAILY MEAN	1450	Mar 25	a1300	Mar 23	710	Feb 12 1988
ANNUAL SEVEN-DAY MINIMUM	1510	Feb 18	1300	Apr 5	721	Feb 8 1988
MAXIMUM PEAK FLOW			b74600	Aug 17	b110000	Aug 17 1989
MAXIMUM PEAK STAGE			41.99	Aug 17	44.13	Aug 17 1989
INSTANTANEOUS LOW FLOW			c		710	Feb 12 1989
ANNUAL RUNOFF (AC-FT)	8874000		8666000		9836000	
ANNUAL RUNOFF (CFSM)	1.86		1.81		2.06	
ANNUAL RUNOFF (INCHES)	25.22		24.63		27.95	
10 PERCENT EXCEEDS	33100		30500		33300	
50 PERCENT EXCEEDS	4860		4450		7170	
90 PERCENT EXCEEDS	1800		1470		1610	

\# See Period of Record; partial years used in monthly statistics
a Mar. 23 & April 6 to 11
b Result of Tulsequah River glacier dam breakout
c Not determined; see lowest daily mean

15041200 TAKU RIVER NEAR JUNEAU--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1998 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1999 to current year

INSTRUMENTATION.--Electronic water-temperature recorder set for 15-minute recording interval.

REMARKS.- Records good. Records represent water temperature at the sensor within 0.5°C. Temperature cross sections were performed on March 29, and August 16-18. The outburst peak of the lake dammed by Tulsequah Glacier occurred on August 16-18. As a result, the temperature cross sections showed variations of 0.5°C during sampling on August 16, 2.0° C on August 17 and no variation on August 18. Variation of 1.5° C were found on March 29.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 12.5°C, July 14, 1999 and July 20 and 21, 2001; minimum, 0.0°C, many days during most winters.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 12.0°C, July 7 and 8, ; minimum, 0.0°C, many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)
MAR								
29...	1537	757	11.4	82	8.0	237	1.5	105
29...	1539	757	11.4	81	8.0	241	1.0	150
29...	1541	757	11.5	80	8.0	248	.5	185
29...	1543	757	11.6	80	8.0	252	.0	205
29...	1547	757	11.5	79	8.0	255	.0	230
AUG								
18...	1115	761	12.5	103	7.6	106	7.0	106
18...	1120	761	12.4	103	7.7	108	7.0	249
18...	1122	761	12.4	103	7.7	108	7.0	256
18...	1124	761	12.3	101	7.7	108	7.0	498
18...	1126	761	12.3	101	7.7	108	7.0	604

DATE	TIME	MEDIUM CODE	SAMPLE TYPE	STREAM WIDTH (FT) (00004)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)
NOV													
14...	1240	9	9	308	29.62	3390	20	3053	210	8.1	3.0	.5	740
MAR													
29...	1608	9	9	290	--	1480	20	8010	247	7.8	5.5	.5	757
MAY													
09...	1025	9	9	480	29.98	4380	10	3053	124	7.9	11.0	6.5	766
JUN													
12...	1240	9	9	719	36.19	29200	20	3053	128	7.1	17.5	9.0	767
JUL													
18...	1600	9	9	702	35.86	29100	20	3053	110	7.8	--	10.5	762
AUG													
16...	1957	9	9	793	40.73	58200	20	3055	111	7.9	14.0	4.5	--
17...	1651	9	9	837	41.90	68900	20	3055	129	8.0	--	3.5	--
18...	1432	9	9	711	35.53	25700	20	3055	108	7.7	--	7.0	761
SEP													
11...	1600	9	9	663	32.95	14300	20	3053	130	7.8	--	7.5	762

15041200 TAKU RIVER NEAR JUNEAU--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	SULFATE (MG/L AS SO4) (00946)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV													
14...	13.4	96	113	32.3	7.78	3.5	92	1.00	122	92	92	18	.072
MAR													
29...	11.5	80	128	37.5	8.32	5.84	92	1.00	109	89	--	21	.185
MAY													
09...	11.9	96	110	32.1	6.88	3.45	86	1.00	103	84	86	18	.406
JUN													
12...	11.8	101	58	17.5	3.51	1.43	50	<.70	59	48	50	18	.020
JUL													
18...	11.8	106	52	15.5	3.20	1.30	--	<.70	--	--	--	--	.020
AUG													
16...	--	--	35	11.6	1.55	.64	28	1.00	34	28	28	8.1	.040
17...	--	--	42	13.2	2.11	.62	30	1.00	36	30	30	10	.040
18...	12.4	102	53	16.6	2.78	1.09	43	1.00	51	42	43	10	.047
SEP													
11...	12.5	104	66	19.6	4.21	1.56	55	<.70	65	53	55	12.2	.020

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV													
14...	.05	.013	144	27	.6	.5	41	38	<.10	<.10	<1	--	1.1
MAR													
29...	.050	.010	73	<20	.7	.4	47	45	<.10	<.10	<1	<1	<1.0
MAY													
09...	.040	.017	139	<20	1	.6	45	40	<.10	<.10	<1	<1	1.7
JUN													
12...	.06	.073	1730	47	2	1.2	56	29	<.10	<.10	<1	<1	4.4
JUL													
18...	.07	.194	2890	63	3	1.2	74	28	<.12	<.10	5	1	7.9
AUG													
16...	.04	.910	18400	51	11	.5	370	20	.55	<.10	30	<1	48
17...	.04	.690	12800	43	9	.4	280	26	.39	<.10	22	<1	35
18...	.04	.360	5950	45	5	.5	139	29	.18	<.10	12	<1	18
SEP													
11...	<.02	.051	1280	43	1.3	.6	51	30	.17	.12	2	<1	3.7

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
NOV													
14...	<1	310	30	.20	<.10	24	20	2	1.64	<1.0	<1	<.10	<.10
MAR													
29...	<1.0	480	<10	.20	<.10	49	42	1	.56	--	--	<.10	<.10
MAY													
09...	1.3	420	70	.20	<.10	29	20	E2	E2	--	--	<.10	<.10
JUN													
12...	<1.0	2190	<10	1.0	<.10	63	5.5	5	.56	--	--	<.10	<.10
JUL													
18...	<1.0	3960	<10	2.6	<.10	122	5.4	8	.50	--	--	<.10	<.10
AUG													
16...	<1.0	24300	<10	16	<.10	676	7.2	37	<.30	--	--	.20	<.10
17...	<1.0	18000	<10	12	<.10	495	9.0	28	.46	--	--	.15	<.10
18...	<1.0	8880	<10	6.0	<.10	259	7.3	17	.42	--	--	<.10	<.10
SEP													
11...	<1.0	1720	<10	1.5	<.10	54	8.0	4	.55	--	--	<.10	<.10

15041200 TAKU RIVER NEAR JUNEAU--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
NOV				
14...	<4	<4	.9	.9
MAR				
29...	<4	<4	<.7	.5
MAY				
09...	<4	--	1.9	2.1
JUN				
12...	9	<4	1.2	1.2
JUL				
18...	17	<4	1.2	1.0
AUG				
16...	122	<4	<.5	.5
17...	80	<4	<.5	<.5
18...	35	<4	.5	.5
SEP				
11...	8	<4	1.3	1.1

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	7.5	8.0	2.0	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
2	9.0	7.0	8.0	2.5	1.5	2.0	0.5	0.0	0.0	0.5	0.0	0.0
3	8.0	6.5	7.0	2.0	1.5	2.0	0.5	0.0	0.0	0.5	0.0	0.0
4	7.0	6.0	6.5	2.0	1.5	1.5	0.5	0.5	0.5	0.5	0.0	0.0
5	7.0	5.5	6.0	2.0	1.5	2.0	0.5	0.0	0.5	0.5	0.0	0.0
6	6.0	5.5	6.0	1.5	1.0	1.0	0.5	0.0	0.5	0.5	0.0	0.0
7	6.0	4.0	5.0	1.0	1.0	1.0	0.5	0.0	0.0	0.5	0.0	0.0
8	4.5	3.5	4.0	1.0	0.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0
9	3.5	2.5	3.0	1.0	0.0	0.5	0.5	0.0	0.5	0.0	0.0	0.0
10	6.0	3.5	5.0	0.5	0.0	0.5	0.5	0.0	0.5	0.0	0.0	0.0
11	6.5	5.5	5.5	1.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
12	6.0	4.5	5.5	1.0	1.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0
13	6.0	5.0	5.0	1.0	0.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0
14	6.0	4.5	5.0	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
15	4.5	3.5	4.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
16	4.0	3.5	3.5	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
17	4.5	4.0	4.0	1.5	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
18	5.0	4.5	5.0	1.5	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
19	5.0	4.5	5.0	1.5	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
20	4.5	4.0	4.5	1.5	1.0	1.0	0.5	0.0	0.0	0.5	0.0	0.0
21	4.5	4.0	4.0	1.5	1.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0
22	4.5	3.5	4.0	1.5	1.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0
23	4.5	4.0	4.0	1.5	1.5	1.5	0.5	0.0	0.0	0.0	0.0	0.0
24	4.0	3.5	3.5	1.5	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
25	3.5	2.5	3.0	1.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
26	2.5	2.0	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	2.0	1.5	1.5	1.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
28	2.0	1.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	1.5	0.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	2.0	1.5	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	2.0	2.0	2.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	9.0	0.5	4.3	2.5	0.0	1.0	0.5	0.0	0.0	0.5	0.0	0.0

15041200 TAKU RIVER NEAR JUNEAU--Continued

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.0	0.0	0.0	1.0	0.0	0.5	1.5	0.0	0.5	5.0	3.5	4.0
2	0.0	0.0	0.0	0.5	0.0	0.0	2.0	0.0	1.0	3.5	2.0	3.0
3	0.0	0.0	0.0	0.5	0.0	0.0	2.5	0.0	1.0	4.0	1.5	2.5
4	0.0	0.0	0.0	0.5	0.0	0.0	2.0	0.0	0.5	4.5	2.5	3.5
5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5	4.0	2.0	3.0
6	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.5	5.5	2.5	4.0
7	0.0	0.0	0.0	0.5	0.0	0.0	3.0	0.5	1.5	6.0	4.5	5.0
8	0.0	0.0	0.0	0.5	0.0	0.0	4.0	0.5	1.5	7.0	4.5	5.5
9	0.0	0.0	0.0	0.5	0.0	0.0	4.0	1.0	2.0	6.5	5.0	5.5
10	0.0	0.0	0.0	0.5	0.0	0.0	3.5	1.5	2.0	6.0	5.0	5.5
11	0.0	0.0	0.0	0.5	0.0	0.0	4.5	1.5	2.5	6.5	5.5	6.0
12	0.0	0.0	0.0	0.5	0.0	0.0	4.0	2.0	2.5	6.5	5.5	6.0
13	0.0	0.0	0.0	0.5	0.0	0.0	4.5	1.5	2.5	6.5	6.0	6.5
14	0.0	0.0	0.0	0.5	0.0	0.0	4.0	2.5	3.0	6.0	5.0	5.5
15	0.0	0.0	0.0	1.0	0.0	0.5	6.0	2.5	3.5	7.5	5.0	6.0
16	0.5	0.0	0.0	1.0	0.0	0.5	5.0	2.5	3.5	8.0	5.5	7.0
17	0.5	0.0	0.0	1.0	0.0	0.5	5.5	2.5	4.0	8.0	6.0	7.0
18	0.0	0.0	0.0	0.5	0.0	0.0	4.5	3.0	3.5	7.0	6.0	6.5
19	0.5	0.0	0.0	1.0	0.0	0.0	4.5	3.0	3.5	8.5	5.5	6.5
20	0.0	0.0	0.0	1.0	0.0	0.5	3.5	3.0	3.5	8.5	5.5	7.0
21	0.0	0.0	0.0	1.0	0.0	0.5	3.5	3.0	3.0	8.0	6.5	7.0
22	0.5	0.0	0.0	1.5	0.0	0.5	4.5	2.5	3.5	6.5	5.5	6.0
23	0.0	0.0	0.0	1.0	0.0	0.5	5.0	3.0	4.0	8.0	5.5	6.5
24	0.0	0.0	0.0	1.5	0.0	0.5	5.5	3.5	4.0	9.0	6.5	7.5
25	0.0	0.0	0.0	1.0	0.0	0.5	5.5	3.5	4.5	9.5	6.5	8.0
26	0.0	0.0	0.0	1.5	0.0	0.5	5.0	3.5	4.0	9.0	7.0	8.0
27	0.5	0.0	0.0	1.5	0.0	0.5	5.5	3.5	4.5	8.5	7.0	7.5
28	0.5	0.0	0.0	1.0	0.0	0.5	6.0	4.0	5.0	8.0	7.0	7.5
29	---	---	---	2.0	0.0	1.0	6.5	4.0	5.5	8.0	6.5	7.5
30	---	---	---	2.0	0.0	0.5	6.0	4.0	5.0	8.5	6.0	7.5
31	---	---	---	1.5	0.0	0.5	---	---	---	8.0	6.0	7.0
MONTH	0.5	0.0	0.0	2.0	0.0	0.3	6.5	0.0	2.9	9.5	1.5	6.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.0	6.5	7.5	8.5	7.5	8.0	10.0	8.0	9.0	9.0	8.0	8.5
2	9.0	7.0	8.0	8.0	7.0	7.5	10.0	8.0	9.0	9.0	8.0	8.5
3	9.5	7.5	8.5	8.5	7.0	7.5	9.5	8.0	9.0	9.0	8.0	8.5
4	9.0	7.5	8.0	9.5	7.5	8.5	10.5	7.0	8.5	9.0	7.5	8.5
5	9.5	7.0	8.0	9.5	8.0	8.5	11.0	7.5	9.0	9.0	7.5	8.5
6	9.5	7.5	8.0	11.0	8.5	9.5	10.5	8.5	9.5	9.5	8.0	8.5
7	8.0	6.5	7.0	12.0	8.5	10.0	9.5	9.0	9.0	9.0	8.0	8.5
8	10.5	6.5	8.5	12.0	9.0	10.5	9.0	8.0	8.0	9.0	8.0	8.5
9	10.0	8.0	8.5	11.5	10.0	10.5	9.0	7.5	8.0	8.5	8.0	8.0
10	9.0	7.5	8.0	10.5	8.5	9.0	9.0	8.0	8.5	8.5	7.5	8.0
11	9.0	7.5	8.0	10.0	8.5	9.0	9.0	8.0	8.5	8.5	7.5	8.0
12	10.0	7.5	8.5	11.0	8.5	10.0	9.0	8.0	8.5	9.0	7.5	8.0
13	11.0	7.5	9.0	10.5	8.5	9.0	8.0	6.0	7.5	8.5	7.5	8.0
14	11.5	8.5	10.0	9.5	8.0	8.5	9.0	7.0	7.5	8.5	7.0	7.5
15	11.0	8.5	9.5	10.0	8.5	9.0	8.0	6.0	7.0	8.0	7.5	8.0
16	9.5	7.0	8.5	10.0	8.5	9.5	7.5	5.0	6.0	8.0	7.5	8.0
17	10.5	7.0	8.5	9.5	8.5	9.0	6.0	4.0	5.0	8.0	7.5	8.0
18	10.0	8.5	9.0	10.5	8.0	9.5	8.5	6.0	7.5	8.0	7.0	7.5
19	8.5	8.0	8.0	11.0	8.5	9.5	9.0	8.0	8.5	8.0	7.0	7.0
20	9.5	7.5	8.5	11.0	9.0	9.5	9.0	8.5	9.0	8.0	7.0	7.5
21	10.0	7.5	8.5	10.0	9.0	9.5	9.5	8.5	9.0	8.0	7.0	7.5
22	11.0	8.0	9.5	10.5	9.0	9.5	9.0	8.0	8.5	7.5	6.5	7.0
23	10.5	8.5	9.5	10.5	9.5	10.0	8.0	7.5	7.5	7.5	7.0	7.0
24	10.5	9.0	9.5	10.0	9.5	9.5	7.5	7.0	7.0	8.5	7.5	8.0
25	10.0	8.5	9.0	10.0	8.5	9.0	8.0	7.0	7.5	8.5	8.0	8.5
26	10.0	8.5	9.0	9.5	8.5	9.0	8.0	7.5	8.0	8.5	7.5	8.0
27	10.0	8.5	9.0	9.5	8.5	9.0	8.0	7.5	7.5	9.0	8.0	8.5
28	11.0	8.0	9.5	9.5	8.0	8.5	7.5	6.5	7.0	8.5	7.5	8.0
29	10.5	8.5	9.5	9.0	8.0	8.5	8.0	6.5	7.5	7.5	6.5	7.0
30	9.0	8.5	8.5	9.5	7.0	8.5	9.0	8.0	8.0	7.0	5.5	6.0
31	---	---	---	10.0	7.5	9.0	9.0	8.0	8.5	---	---	---
MONTH	11.5	6.5	8.6	12.0	7.0	9.1	11.0	4.0	8.0	9.5	5.5	7.9

15050000 GOLD CREEK AT JUNEAU

LOCATION.--Lat 58°18′25″, long 134°24′05″, in NW$\frac{1}{4}$ NE$\frac{1}{4}$ sec. 23, T. 41 S., R. 67 E. (Juneau B-2 SE quad), City and Borough of Juneau, Hydrologic Unit 19010301, on left bank, 150 ft upstream from Alaska Electric Light and Power Company dam and diversion, 0.5 mi northeast of Juneau, and 1 mi upstream from mouth at Gastineau Channel.

DRAINAGE AREA.--9.76 mi^2.

PERIOD OF RECORD.--July 1916 to December 1920 (monthly discharge only), October 1946 to September 1948, October 1949 to September 1982. Annual maximums, water years 1991, 1994, 1996. October 1997 to current year.

REVISED RECORDS.--WSP 1372: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 245 ft above sea level, from topographic map. July 20, 1916 to December 31, 1920, at site 50 ft upstream at different datum. September 11, 1946 to September 30, 1948, nonrecording gage at site 0.7 mi downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Water may be diverted about 0.5 mi upstream and three wells, located upstream from the gage in Last Chance Basin, pump water for municipal use and may decrease flow during winter periods.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug 07	1545	1270	5.07	Aug 23	0015	1230	5.00
Aug 12	1645	*1570	*5.58				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	383	43	16	22	13	10	5.5	33	319	313	192	276
2	283	68	16	20	13	19	e5.0	31	325	389	187	201
3	171	71	15	19	13	20	e4.7	26	321	298	166	146
4	128	56	15	18	12	14	e4.4	23	427	316	167	106
5	102	42	15	17	12	e12	e4.1	20	522	336	160	76
6	135	34	15	35	12	e11	e3.9	19	379	330	148	64
7	104	30	17	52	11	e10	e3.4	18	286	298	748	209
8	111	32	20	76	11	e9.2	e3.3	18	298	259	834	173
9	197	52	17	102	11	e8.6	e3.2	19	366	333	486	144
10	281	45	16	123	15	e8.1	e3.5	23	422	322	332	191
11	236	36	16	79	13	e7.6	e3.9	35	341	317	344	195
12	269	30	15	60	23	7.1	e4.3	50	260	280	811	132
13	176	26	15	47	17	5.9	e4.7	87	248	218	426	88
14	136	27	14	37	18	5.3	e5.0	114	330	284	266	76
15	108	26	14	37	32	6.0	e5.4	96	407	276	184	133
16	138	28	13	34	41	e5.4	6.0	121	388	236	133	131
17	178	28	12	30	21	e5.6	6.3	150	362	289	103	156
18	364	26	13	29	17	e5.8	6.9	145	329	258	114	384
19	336	24	12	28	15	5.6	7.5	206	252	219	124	248
20	199	24	12	24	14	5.5	11	322	240	219	176	209
21	165	25	12	21	13	5.5	12	398	217	313	901	308
22	138	32	12	19	12	5.7	11	309	211	342	547	167
23	107	38	19	19	11	5.1	11	286	258	344	598	124
24	89	30	110	17	13	5.5	11	246	290	585	288	122
25	73	24	92	16	10	5.8	12	247	427	395	226	132
26	58	21	57	e15	11	6.9	12	268	415	347	322	122
27	53	20	42	e14	9.6	6.9	12	281	325	382	597	171
28	46	19	49	e14	9.7	6.9	14	379	277	301	551	118
29	59	18	47	14	---	6.5	17	458	275	269	505	74
30	44	17	31	15	---	6.1	23	444	266	224	382	47
31	37	---	25	14	---	5.9	---	317	---	208	365	---
TOTAL	4904	992	794	1067	423.3	248.5	237.0	5189	9783	9500	11383	4723
MEAN	158.2	33.07	25.61	34.42	15.12	8.016	7.900	167.4	326.1	306.5	367.2	157.4
MAX	383	71	110	123	41	20	23	458	522	585	901	384
MIN	37	17	12	14	9.6	5.1	3.2	18	211	208	103	47
MED	136	29	16	22	13	6.5	5.7	121	323	301	322	139
AC-FT	9730	1970	1570	2120	840	493	470	10290	19400	18840	22580	9370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	157.7	82.17	36.51	22.06	14.49	12.50	24.28	126.1	226.8	228.6	192.3	183.2
MAX	349	206	202	170	81.4	137	91.7	220	326	364	374	302
(WY)	2000	1947	2000	1981	1977	1947	1947	1948	2002	1975	1961	1999
MIN	62.6	18.1	6.22	1.71	0.48	0.055	3.78	64.5	134	130	85.4	73.7
(WY)	1952	1976	1956	1974	1972	1974	1954	1920	1981	1982	1968	1978

e Estimated

15050000 GOLD CREEK AT JUNEAU—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1916 - 2002#	
ANNUAL TOTAL	37387.9		49243.8			
ANNUAL MEAN	102.4		134.9		109.4	
HIGHEST ANNUAL MEAN					155	2000
LOWEST ANNUAL MEAN					77.5	1951
HIGHEST DAILY MEAN	600	Sep 13	901	Aug 21	1830	Aug 12 1961
LOWEST DAILY MEAN	4.7	Apr 2	a3.2	Apr 9	b0.00	Mar 4 1951
ANNUAL SEVEN-DAY MINIMUM	5.2	Apr 10	3.6	Apr 5	0.00	Mar 4 1951
MAXIMUM PEAK FLOW			1570	Aug 12	2950	Sep 25 1996
MAXIMUM PEAK STAGE			5.58	Aug 12	8.14	Sep 25 1996
INSTANTANEOUS LOW FLOW			c		0.00	Mar 4 1951
ANNUAL RUNOFF (AC-FT)	74160		97680		79260	
10 PERCENT EXCEEDS	243		344		265	
50 PERCENT EXCEEDS	49		49		67	
90 PERCENT EXCEEDS	11		6.9		5.0	

See Period of Record; partial years used in monthly statistics
a No flow at times during some winters
b Not determined, see lowest daily discharge

15051010 SALMON CREEK NEAR JUNEAU

LOCATION.--Lat 58°19′57″, long 134°27′57″, in NE$\frac{1}{4}$ SE$\frac{1}{4}$ NW$\frac{1}{4}$ sec. 9, T. 41 S., R. 67 E. (Juneau B-2 SE quad), City and Borough of Juneau, Hydrologic Unit 19010301, in Tongass National Forest, on left bank, about 0.3 mi upstream from mouth and 2.5 mi northwest of Juneau.

DRAINAGE AREA.--9.69 mi^2.

PERIOD OF RECORD.--October 1990 to current year. Daily discharge record previously collected 0.5 mi upstream at station number 15051008 "above canyon mouth" during water-years 1982-90. Drainage area, 9.50 mi^2.

REVISED RECORDS.--WDR AK 93-1: 1991 (m).

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges which are poor. Flow regulated by Salmon Creek Reservoir 2.5 mi upstream. Diversions upstream for off-stream hydropower plant; outflow from the plant goes into Gastineau Channel and is not included in the discharge records. Diversions upstream into Twin Lakes via a pipeline are also not included in the discharge records.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	e41	e8.2	17	e8.4	11	8.5	22	60	49	29	65
2	61	e57	e7.8	16	e8.6	34	8.5	18	63	67	29	55
3	44	e50	e7.8	15	e8.5	25	8.4	13	63	53	26	43
4	36	e40	e8.3	14	e8.6	14	8.5	10	101	49	25	38
5	32	e33	8.7	13	e8.6	13	8.1	9.3	114	46	24	34
6	37	e25	11	25	e8.7	e14	8.8	8.9	78	46	22	31
7	31	e22	14	27	e8.7	e13	8.1	8.8	60	42	122	54
8	34	e66	16	31	e9.0	e12	8.0	9.5	62	41	167	49
9	56	e53	11	36	e9.2	e11	8.0	11	77	47	99	42
10	69	e45	10	39	e10	e11	8.0	13	81	41	66	45
11	59	e36	9.4	26	12	e10	8.1	23	60	43	63	54
12	77	e27	9.9	22	37	e9.5	8.1	28	48	38	162	43
13	49	e23	9.2	19	16	e9.0	8.3	36	49	37	93	37
14	37	e27	8.5	18	23	e8.8	8.4	34	61	47	64	34
15	32	e33	e8.5	19	44	e8.6	7.7	26	73	48	53	42
16	48	e32	e8.3	19	44	e8.4	7.8	27	70	41	42	41
17	62	e29	e8.1	17	20	e8.2	8.5	36	64	43	37	41
18	93	e25	e8.0	18	15	e8.0	8.6	37	56	39	37	79
19	94	e22	e7.9	18	13	e8.0	9.2	53	43	32	36	67
20	55	e18	e8.1	16	12	e8.5	12	72	43	32	38	59
21	54	e17	e8.0	e12	11	e8.2	12	81	39	43	176	79
22	46	e25	10	e11	e10	e8.2	10	64	38	48	109	55
23	e35	e29	23	e10	e9.5	e8.4	11	60	46	57	127	44
24	e30	e21	60	e9.6	e9.0	e8.7	10	49	52	98	65	38
25	e29	e17	45	e9.1	e9.0	e9.0	10	50	74	61	57	39
26	e28	e15	33	e8.8	e9.2	11	10	56	71	54	74	38
27	e28	e13	30	e8.7	e9.5	10	10	59	52	54	136	46
28	e60	e11	29	e8.5	e9.8	9.7	11	86	43	46	117	36
29	e55	e9.3	27	e8.4	---	9.5	13	92	45	39	105	31
30	e40	e8.5	22	e8.2	---	9.0	19	79	44	35	81	28
31	e32	---	19	e8.6	---	8.7	---	55	---	32	79	---
TOTAL	1519	869.8	494.7	527.9	401.3	345.4	285.6	1226.5	1830	1448	2360	1387
MEAN	49.00	28.99	15.96	17.03	14.33	11.14	9.520	39.56	61.00	46.71	76.13	46.23
MAX	94	66	60	39	44	34	19	92	114	98	176	79
MIN	28	8.5	7.8	8.2	8.4	8.0	7.7	8.8	38	32	22	28
AC-FT	3010	1730	981	1050	796	685	566	2430	3630	2870	4680	2750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	62.88	29.91	26.32	18.16	21.77	16.81	23.76	49.26	56.51	46.19	39.68	61.91
MAX	131	76.9	69.5	33.5	45.0	39.0	38.6	71.3	82.9	69.0	76.1	108
(WY)	1999	1994	2000	1992	1992	1992	1994	1992	1991	1997	2002	1991
MIN	36.2	16.3	12.7	9.65	9.16	9.38	9.52	29.7	35.9	22.7	18.2	41.0
(WY)	1997	1991	1997	1997	1999	1997	2002	1996	1995	1993	1994	1997

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002#	
ANNUAL TOTAL	11866.4		12695.2			
ANNUAL MEAN	32.51		34.78		37.82	
HIGHEST ANNUAL MEAN					48.6	1992
LOWEST ANNUAL MEAN					29.7	1995
HIGHEST DAILY MEAN	173	Sep 13	176	Aug 21	954	Oct 20 1998
LOWEST DAILY MEAN	5.7	Mar 24	7.7	Apr 15	5.7	Mar 24 2001
ANNUAL SEVEN-DAY MINIMUM	7.2	Mar 20	8.1	Apr 10	6.8	Mar 4 1998
MAXIMUM PEAK FLOW			330	Aug 12	1930	Sep 25 1996
MAXIMUM PEAK STAGE			3.03	Aug 12	a4.65	Sep 25 1996
INSTANTANEOUS LOW FLOW			b5.0	Apr 15		
ANNUAL RUNOFF (AC-FT)	23540		25180		27400	
10 PERCENT EXCEEDS	61		68		73	
50 PERCENT EXCEEDS	27		29		28	
90 PERCENT EXCEEDS	9.4		8.5		9.9	

\# See Period of Record
a From flood marks
b Apr. 15 and 16
e Estimated

15052475 JORDAN CREEK BELOW EGAN DRIVE NEAR AUKE BAY

LOCATION.--Lat 58°21′59″, long 134°34′34″, in SW$\frac{1}{4}$ SW$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 30, T. 40 S., R. 66 (Juneau B-2 SW quad), Hydrologic Unit 19010301, City and Borough of Juneau on right bank at downstream side of footbridge, 50 ft downstream from Egan Drive, 0.4 mi southeast of intersection of Egan Drive and Mendenhall Loop Road and 3 mi east of Auke Bay Post Office.

DRAINAGE AREA.--2.60 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 to current year. Prior to October 1996, published as miscellaneous site 15052482 Jordan Creek at Trout Street Bridge near Auke Bay, at site about 500 ft downstream at different datum.

GAGE.--Water-stage recorder. Datum of gage is 19.80 ft above sea level, determined by levels survey.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES telemetry at station.

EXTEREMES OUTSIDE PERIOD OF DAILY RECORD.--Flood of September 25, 1996, reached a stage of 4.34 ft, site and datum then in use, from floodmarks, discharge 140 ft^3/s; no flow observed March 2, 1989, March 5, 1996, and January 15, 1997.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	9.7	e1.8	2.4	e1.4	e2.9	e1.6	3.6	5.9	2.0	2.4	25
2	17	14	e1.7	2.2	e1.5	10	e1.2	2.7	5.8	4.3	2.0	27
3	9.9	14	e1.6	2.0	e2.3	11	e0.93	1.4	5.3	5.6	1.8	16
4	7.9	11	e1.9	1.9	3.9	5.4	e0.63	1.1	13	4.1	1.5	13
5	7.0	8.6	e2.1	1.8	2.4	e5.0	e0.45	0.99	19	3.6	1.3	11
6	10	7.5	e1.8	3.9	1.3	e4.2	e0.30	0.95	9.2	3.3	1.2	9.4
7	7.9	6.8	e3.3	4.6	e1.2	e3.8	e0.18	0.90	6.8	2.7	8.0	16
8	9.4	7.0	14	6.6	e1.1	e3.3	e0.00	0.89	6.1	2.4	23	13
9	13	20	11	6.1	e1.0	e2.9	e0.00	1.2	6.9	2.5	19	11
10	10	12	e8.4	6.7	6.2	e2.5	e0.00	6.9	10	2.6	9.2	10
11	10	9.1	e5.8	4.8	6.0	e2.1	e0.00	7.1	7.9	2.7	7.7	16
12	14	7.7	e3.9	4.2	15	e1.9	e0.00	7.5	5.8	2.3	43	11
13	10	7.1	2.7	4.3	5.0	e1.7	e0.00	9.6	5.1	2.4	41	9.1
14	9.5	7.6	1.5	4.3	6.6	e1.7	e0.00	9.2	4.7	3.2	17	8.2
15	8.5	7.3	1.5	5.2	12	e1.6	e0.00	6.0	4.4	3.0	13	9.1
16	19	7.3	e1.2	6.0	19	e1.6	e0.00	6.3	4.0	2.3	10	8.2
17	19	7.2	e1.1	4.4	6.9	e1.5	e0.00	8.7	3.5	2.4	8.6	9.6
18	23	6.3	e0.98	5.8	5.2	e1.5	e0.00	8.3	3.2	2.1	7.9	23
19	41	5.8	e0.95	6.1	4.5	e1.4	0.48	9.3	3.0	1.8	7.2	21
20	32	5.3	e0.92	5.0	4.1	e1.4	2.1	11	2.9	1.5	7.3	17
21	34	5.0	e0.91	e4.7	3.7	e1.3	2.6	12	2.6	2.0	18	23
22	27	6.1	e0.90	e3.2	e3.7	e1.4	1.4	11	2.3	3.3	14	17
23	20	7.8	e4.0	e2.5	e3.5	e1.5	0.97	12	2.1	2.7	19	12
24	18	5.4	15	e2.1	e3.2	e1.7	0.86	8.8	2.0	7.6	12	10
25	15	4.9	10	e1.9	e3.0	e1.9	0.78	8.1	2.8	6.8	10	9.9
26	13	e4.2	5.4	e1.8	e2.9	e2.1	0.72	8.8	3.2	4.5	14	9.9
27	12	e3.3	4.0	e1.7	e2.8	e2.5	0.73	7.8	2.7	4.1	24	12
28	12	e2.8	4.4	e1.6	e2.8	e2.9	0.86	8.4	2.3	3.9	36	8.8
29	18	e2.5	4.2	e1.5	---	e4.0	1.8	8.6	1.9	3.6	29	6.7
30	12	e2.1	3.3	e1.5	---	e3.5	3.0	7.0	2.0	3.0	27	4.6
31	9.6	---	2.7	e1.4	---	e2.4	---	5.8	---	2.6	30	---
TOTAL	484.7	225.4	122.96	112.2	132.2	92.6	21.59	201.93	156.4	100.9	465.1	397.5
MEAN	15.64	7.513	3.966	3.619	4.721	2.987	0.720	6.514	5.213	3.255	15.00	13.25
MAX	41	20	15	6.7	19	11	3.0	12	19	7.6	43	27
MIN	7.0	2.1	0.90	1.4	1.0	1.3	0.00	0.89	1.9	1.5	1.2	4.6
AC-FT	961	447	244	223	262	184	43	401	310	200	923	788
CFSM	6.01	2.89	1.53	1.39	1.82	1.15	0.28	2.51	2.01	1.25	5.77	5.10
IN.	6.93	3.22	1.76	1.61	1.89	1.32	0.31	2.89	2.24	1.44	6.65	5.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.61	7.999	10.49	6.134	2.647	3.052	4.937	7.790	5.126	5.404	7.697	13.54
MAX	22.2	11.2	20.8	11.3	5.25	4.74	12.1	13.7	10.2	8.49	15.0	18.7
(WY)	1999	2000	2000	1999	2001	2001	1999	1999	1999	2000	2002	1999
MIN	11.1	4.21	2.67	3.52	0.47	1.62	0.72	3.71	1.63	3.25	1.79	7.68
(WY)	1998	1999	1999	1998	1999	1998	2002	1998	1998	2002	2001	1997

\# See Period of Record; partial year used in monthly statistics
e Estimated

15052475 JORDAN CREEK BELOW EGAN DRIVE NEAR AUKE BAY—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002#	
ANNUAL TOTAL	2155.83		2513.48			
ANNUAL MEAN	5.906		6.886		7.757	
HIGHEST ANNUAL MEAN					9.87	2000
LOWEST ANNUAL MEAN					5.95	2001
HIGHEST DAILY MEAN	41	Oct 19	43	Aug 12	129	Dec 28 1999
LOWEST DAILY MEAN	0.57	Aug 17	a0.00	Apr 8	b0.00	Mar 3 1999
ANNUAL SEVEN-DAY MINIMUM	0.78	Aug 12	0.00	Apr 8	0.00	Mar 3 1999
MAXIMUM PEAK FLOW			73	Aug 12	149	Dec 28 1999
MAXIMUM PEAK STAGE			6.09	Aug 12	7.59	Dec 28 1999
INSTANTANEOUS LOW FLOW			a		b0.00	Mar 3 1999
ANNUAL RUNOFF (AC-FT)	4280		4990		5620	
ANNUAL RUNOFF (CFSM)	2.27		2.65		2.98	
ANNUAL RUNOFF (INCHES)	30.84		35.96		40.54	
10 PERCENT EXCEEDS	11		16		17	
50 PERCENT EXCEEDS	4.7		4.5		5.2	
90 PERCENT EXCEEDS	1.5		1.2		1.2	

See Period of Record; partial year used in monthly statistics
a Not determined, see lowest daily mean
b Mar. 3 to Mar. 9, 1999 and Apr. 8 to Apr. 18, 2002

15052475 JORDAN CREEK BELOW EGAN DRIVE NEAR AUKE BAY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1997 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1999 to current year.

INSTRUMENTATION.--Electronic water-temperature recorder with 15-minute recording interval started on July 15, 1999.

REMARKS.-- No record October 1 to January 4, April 6 to 19, and May 18 to June 30 due to recorder malfunction, faulty probe, or water level below probe. Partial record on May 17 and July 1. Records represent water temperature at the sensor within 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum recorded, 13.0°C, July 1, 2001, but may have been higher during period of missing record; minimum, 0°C, many days during winters.

EXTREMES FOR CURRENT PERIOD.--
WATER TEMPERATURE: Maximum recorded, 12.0°C, July 19-20; minimum, 0°C, many days during winter.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	2.0	1.0	1.5
6	---	---	---	---	---	---	---	---	---	2.5	1.5	2.0
7	---	---	---	---	---	---	---	---	---	2.0	1.5	2.0
8	---	---	---	---	---	---	---	---	---	2.0	1.0	1.5
9	---	---	---	---	---	---	---	---	---	2.0	2.0	2.0
10	---	---	---	---	---	---	---	---	---	2.5	1.5	2.0
11	---	---	---	---	---	---	---	---	---	2.5	2.0	2.5
12	---	---	---	---	---	---	---	---	---	2.0	2.0	2.0
13	---	---	---	---	---	---	---	---	---	2.0	2.0	2.0
14	---	---	---	---	---	---	---	---	---	2.5	2.0	2.0
15	---	---	---	---	---	---	---	---	---	2.5	2.0	2.5
16	---	---	---	---	---	---	---	---	---	2.0	2.0	2.0
17	---	---	---	---	---	---	---	---	---	2.0	1.5	2.0
18	---	---	---	---	---	---	---	---	---	2.0	1.5	2.0
19	---	---	---	---	---	---	---	---	---	2.5	2.0	2.0
20	---	---	---	---	---	---	---	---	---	2.0	1.5	2.0
21	---	---	---	---	---	---	---	---	---	1.5	0.0	0.0
22	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
23	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
24	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
25	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
26	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
27	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
28	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
29	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
30	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
31	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

15052475 JORDAN CREEK BELOW EGAN DRIVE NEAR AUKE BAY—Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.0	0.0	0.0	1.5	1.0	1.5	0.0	0.0	0.0	4.5	2.5	3.5
2	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	4.5	2.0	3.0
3	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	4.0	1.0	2.5
4	0.0	0.0	0.0	0.5	0.0	0.5	0.0	0.0	0.0	4.5	1.5	2.5
5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.0	2.5
6	1.0	0.0	0.5	0.0	0.0	0.0	---	---	---	5.0	1.0	3.0
7	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	4.5	3.0	3.5
8	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	6.5	2.0	4.0
9	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	5.5	4.0	4.5
10	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	4.0	2.5	3.0
11	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	4.0	2.0	3.0
12	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	4.5	2.5	3.5
13	1.0	0.0	0.5	0.0	0.0	0.0	---	---	---	4.5	3.0	4.0
14	1.0	0.5	0.5	0.0	0.0	0.0	---	---	---	5.0	3.0	4.0
15	1.0	0.5	0.5	0.0	0.0	0.0	---	---	---	6.5	3.5	5.0
16	1.0	0.0	0.5	0.0	0.0	0.0	---	---	---	8.5	4.0	6.0
17	1.5	1.0	1.0	0.0	0.0	0.0	---	---	---	---	4.0	---
18	2.0	1.0	1.5	0.0	0.0	0.0	---	---	---	---	---	---
19	2.0	1.5	1.5	0.0	0.0	0.0	---	---	---	---	---	---
20	1.5	1.0	1.5	0.0	0.0	0.0	3.0	1.0	2.0	---	---	---
21	1.5	0.5	1.0	0.0	0.0	0.0	2.0	0.5	1.0	---	---	---
22	0.5	0.0	0.0	0.0	0.0	0.0	4.0	0.5	2.0	---	---	---
23	0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.5	3.0	---	---	---
24	0.0	0.0	0.0	0.0	0.0	0.0	4.5	2.0	3.0	---	---	---
25	0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.0	2.5	---	---	---
26	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.5	2.5	---	---	---
27	0.0	0.0	0.0	0.0	0.0	0.0	6.0	1.0	3.0	---	---	---
28	1.0	0.0	0.5	0.0	0.0	0.0	6.0	2.0	3.5	---	---	---
29	---	---	---	0.0	0.0	0.0	5.5	2.0	3.5	---	---	---
30	---	---	---	0.0	0.0	0.0	5.5	1.5	3.5	---	---	---
31	---	---	---	0.5	0.0	0.0	---	---	---	---	---	---
MONTH	2.0	0.0	0.3	1.5	0.0	0.1	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	9.0	---	---	11.0	8.5	10.0	9.5	8.5	8.5
2	---	---	---	9.0	8.0	8.5	11.5	9.5	10.5	9.0	8.0	8.5
3	---	---	---	8.5	7.5	8.0	11.5	9.0	10.0	9.0	8.0	8.5
4	---	---	---	8.5	7.5	8.0	11.5	8.5	10.0	8.5	7.0	8.0
5	---	---	---	8.5	7.5	8.0	11.5	9.0	10.5	9.0	7.5	8.0
6	---	---	---	10.0	8.0	8.5	11.5	10.5	11.0	9.0	8.0	8.5
7	---	---	---	10.5	7.5	9.0	11.0	10.0	10.5	8.5	8.5	8.5
8	---	---	---	10.5	8.5	9.5	10.5	10.0	10.0	8.5	8.0	8.5
9	---	---	---	10.5	9.5	10.0	10.0	9.5	9.5	9.0	8.0	8.5
10	---	---	---	9.5	8.0	8.5	9.5	9.0	9.0	8.5	8.0	8.5
11	---	---	---	9.0	8.5	9.0	9.0	8.5	9.0	8.5	8.0	8.5
12	---	---	---	10.5	8.5	9.5	10.5	9.0	10.0	9.0	8.0	8.5
13	---	---	---	10.0	8.5	9.0	10.5	9.0	10.0	8.5	7.5	8.0
14	---	---	---	9.0	8.5	8.5	9.5	8.5	9.0	8.0	6.5	7.0
15	---	---	---	10.5	8.5	9.5	9.5	8.0	8.5	8.5	7.5	8.0
16	---	---	---	10.5	9.0	9.5	9.0	7.5	8.0	8.0	7.5	8.0
17	---	---	---	9.5	8.5	9.0	8.5	7.5	7.5	8.0	7.5	7.5
18	---	---	---	11.0	9.0	10.0	8.0	7.5	8.0	8.0	7.5	8.0
19	---	---	---	12.0	9.0	10.5	8.5	7.5	8.0	8.0	7.5	7.5
20	---	---	---	12.0	10.0	11.0	8.5	8.0	8.5	8.0	7.5	8.0
21	---	---	---	11.0	10.0	10.5	9.5	8.5	9.0	8.0	7.5	7.5
22	---	---	---	10.5	9.5	10.0	9.5	9.0	9.0	7.5	6.5	7.0
23	---	---	---	10.5	9.5	10.0	10.0	9.5	9.5	7.5	7.0	7.5
24	---	---	---	11.0	10.0	10.5	9.5	8.0	8.5	8.0	7.5	8.0
25	---	---	---	10.5	9.5	10.0	8.5	8.0	8.5	8.0	7.5	7.5
26	---	---	---	9.5	9.0	9.5	9.0	8.0	8.5	8.0	7.5	8.0
27	---	---	---	9.5	9.0	9.5	10.0	8.5	9.0	8.5	8.0	8.0
28	---	---	---	9.5	8.5	9.0	10.0	9.5	10.0	8.0	7.5	8.0
29	---	---	---	9.5	8.0	9.0	9.5	9.0	9.5	8.0	7.0	7.5
30	---	---	---	10.5	8.5	9.5	9.5	8.5	9.0	7.0	5.5	6.0
31	---	---	---	10.5	8.5	9.5	9.0	8.5	9.0	---	---	---
MONTH	---	---	---	12.0	---	---	11.5	7.5	9.3	9.5	5.5	7.9

15052495 NUGGET CREEK ABOVE DIVERSION NEAR AUKE BAY

LOCATION.--Lat 58°25′25″, long 134°31′25″, in SE1/4 SE1/4 SW1/4 sec. 4, T. 40 S., R. 66 E. (Juneau B-2 NW quad), Hydrologic Unit 19010301, City and Borough of Juneau, on left bank, 1,200 ft upstream from old diversion dam, 3,000 ft upstream from mouth at Mendenhall Lake and 5.2 mi northeast of Auke Bay.

DRAINAGE AREA.-- 15.8 mi^2.

PERIOD OF RECORD.--March 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 590 ft above sea level, from topographic map.

REMARKS.--Records fair except estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	49	e19	33	e9.0	13	e9.2	53	275	353	243	485
2	307	53	e18	29	e8.9	21	e8.8	49	297	569	226	349
3	164	52	e18	28	e8.8	22	e8.3	42	299	406	200	259
4	152	47	e17	26	e8.7	15	e8.0	36	505	426	198	205
5	136	42	e17	25	e8.6	15	e7.7	31	488	461	202	168
6	181	39	19	57	e8.5	15	e7.2	29	354	375	190	156
7	124	35	22	68	e8.4	14	e7.1	28	282	315	1170	453
8	145	37	26	60	e8.2	e13	e7.1	28	318	308	1300	283
9	172	46	21	57	e8.0	e12	e7.1	31	434	314	939	243
10	178	43	20	60	e8.6	e10	e7.4	42	605	291	642	286
11	164	37	20	45	e9.4	e9.6	e7.6	46	481	283	474	269
12	207	34	20	38	e11	e8.8	e7.7	60	307	244	1610	219
13	137	32	20	34	e13	e8.4	e8.0	79	292	247	1000	165
14	115	33	19	31	14	e8.0	e8.5	89	410	378	598	149
15	93	32	19	30	22	e7.8	e9.2	83	513	351	323	205
16	116	33	18	29	25	e7.5	e9.3	98	485	287	225	182
17	137	33	e17	27	17	e7.3	e9.5	143	448	320	179	238
18	369	32	e16	26	15	e7.0	e9.8	161	381	285	217	419
19	273	30	e15	25	14	e6.8	13	254	313	235	236	312
20	147	33	e14	23	13	e6.6	17	469	318	220	315	310
21	147	37	e13	18	13	e6.5	19	520	245	291	1060	284
22	115	47	e12	e16	12	e6.4	16	352	236	332	714	179
23	91	45	25	e14	e11	e6.6	15	298	278	339	863	184
24	79	35	65	e13	e10	e6.8	15	255	312	667	375	182
25	68	25	58	e12	e9.5	e7.0	15	276	471	677	277	188
26	59	e24	50	e11	e9.5	e8.4	15	288	484	701	460	192
27	60	e23	43	e10	e9.2	e10	16	278	368	600	835	269
28	56	e22	50	e9.8	e10	12	20	430	295	524	838	200
29	63	e21	54	e9.6	---	11	28	473	288	388	837	146
30	52	e20	43	e9.4	---	11	41	379	298	285	589	114
31	48	---	37	e9.2	---	9.9	---	273	---	259	493	---
TOTAL	4446	1071	825	883.0	323.3	323.4	377.5	5673	11080	11731	17828	7293
MEAN	143.4	35.70	26.61	28.48	11.55	10.43	12.58	183.0	369.3	378.4	575.1	243.1
MAX	369	53	65	68	25	22	41	520	605	701	1610	485
MIN	48	20	12	9.2	8.0	6.4	7.1	28	236	220	179	114
MED	137	35	20	26	9.8	9.6	9.2	98	318	332	474	212
AC-FT	8820	2120	1640	1750	641	641	749	11250	21980	23270	35360	14470
CFSM	9.08	2.26	1.68	1.80	0.73	0.66	0.80	11.6	23.4	24.0	36.4	15.4
IN.	10.47	2.52	1.94	2.08	0.76	0.76	0.89	13.36	26.09	27.62	41.97	17.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	189.5	69.43	43.69	41.71	24.42	16.38	20.43	141.2	407.6	480.7	442.8	336.0
MAX	236	103	60.8	54.9	37.3	22.3	26.9	183	476	586	575	438
(WY)	2001	2001	2001	2001	2001	2001	2000	2002	2000	2000	2002	2000
MIN	143	35.7	26.6	28.5	11.5	10.4	12.6	95.2	369	378	317	243
(WY)	2002	2002	2002	2002	2002	2002	2002	2001	2002	2002	2001	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002#	
ANNUAL TOTAL	59150		61854.2			
ANNUAL MEAN	162.1		169.5		173.9	
HIGHEST ANNUAL MEAN					178	2001
LOWEST ANNUAL MEAN					169	2002
HIGHEST DAILY MEAN	925	Sep 13	1610	Aug 12	1610	Aug 12 2002
LOWEST DAILY MEAN	11	Apr 1	6.4	Mar 22	6.4	Mar 22 2002
ANNUAL SEVEN-DAY MINIMUM	12	Mar 28	6.7	Mar 18	6.7	Mar 18 2002
MAXIMUM PEAK FLOW			2940	Aug 12	2940	Aug 12 2002
MAXIMUM PEAK STAGE			25.57	Aug 12	25.57	Aug 12 2002
ANNUAL RUNOFF (AC-FT)	117300		122700		126000	
ANNUAL RUNOFF (CFSM)	10.3		10.7		11.0	
ANNUAL RUNOFF (INCHES)	139.26		145.63		149.54	
10 PERCENT EXCEEDS	417		456		446	
50 PERCENT EXCEEDS	59		52		68	
90 PERCENT EXCEEDS	17		8.9		12	

\# See Period of Record; partial years used in monthly statistics
e Estimated

15052500 MENDENHALL RIVER NEAR AUKE BAY

LOCATION.--Lat 58°25′47″, long 134°34′22″, in NW$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 6, T. 40 S., R. 66 E. (Juneau B-2 NW quad.), Hydrologic Unit 19010301, at the north end of Mendenhall Lake, 1.2 mi north of Mendenhall Lake Outlet and 4.1 mi northeast of Auke Bay, and 7 mi upstream from mouth at Fritz Cove.

DRAINAGE AREA.--85.1 mi^2.

PERIOD OF RECORD.--May 1965 to October 1994, annual maximum, water years 1995-96, October 1996 to current year. Prior to April 15, 1983, at site 1.3 mi southeast at east end of Mendenhall Lake, same datum.

REVISED RECORDS.--WDR AK-95-1: 1981(M)

GAGE.--Water-stage recorder. Elevation of gage is 60 ft above sea level, from topographic map.

REMARKS.--Records fair except estimated daily discharges, which are poor. Streamflow is augmented and diurnal fluctuations caused by melting from Mendenhall Glacier, which covers two-thirds of the basin. GOES satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--During late summer 1961, flood flows of 27,000 ft^3/s were estimated at the mouth of the Mendenhall River. For discussion of this flood, see USGS Hydrologic Atlas HA-259.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,600 ft^3/s and maximum (*):.

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jul 26	0200	5310	6.79	Aug 23	1315	7760	7.96
Aug 10	0030	8330	8.20	Aug 29	0100	7440	7.82
Aug 13	1515	*10300	*8.97				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1730	221	97	124	63	60	38	e110	1720	2490	2800	3640
2	2230	229	89	117	64	75	e36	e100	1660	3280	2860	3210
3	1810	239	86	112	65	107	35	e92	1640	3210	2630	3010
4	1360	236	81	107	62	105	33	e90	1870	2640	2560	2680
5	1240	214	78	104	59	93	32	e90	2240	2920	2620	2110
6	1380	194	75	126	56	80	31	e97	1930	2750	2460	1940
7	1320	178	77	171	53	70	30	92	e1800	2540	3480	2450
8	1110	168	89	211	52	62	30	87	e1900	2620	6370	2610
9	1100	203	88	238	52	56	30	89	e2200	2720	8220	2400
10	1090	205	86	281	58	51	31	107	e2500	2570	7000	1940
11	1060	190	81	280	61	48	32	126	2320	2710	4690	2170
12	1020	169	82	258	77	46	32	153	1960	2870	6300	2070
13	955	153	79	223	80	42	33	187	1870	2450	10100	1590
14	817	144	73	194	91	41	35	228	2070	2560	7510	1260
15	639	141	67	178	108	38	38	239	2610	2680	4200	1460
16	575	145	60	174	140	36	37	261	2790	2550	3200	1730
17	601	151	56	154	128	34	37	333	2790	2520	2490	1800
18	955	147	54	146	114	33	38	411	2680	2700	2380	2370
19	1190	140	52	144	101	30	40	524	2280	2660	2400	2600
20	945	136	50	133	93	30	50	813	2190	2520	2630	2390
21	889	138	49	115	87	30	67	1200	2030	2590	4300	2020
22	829	153	47	103	77	28	76	1280	1900	3000	5710	1560
23	626	182	52	99	69	28	74	1280	2080	3260	7400	1190
24	498	144	92	95	65	29	71	1350	2110	4070	4900	1240
25	424	e140	136	86	64	30	66	1470	2570	4850	3270	1390
26	379	e130	148	79	65	34	64	1430	3040	4850	3230	1560
27	357	130	148	74	64	41	62	1430	3000	4090	4980	1850
28	318	124	155	73	61	44	64	1510	2690	4300	7100	1950
29	303	115	156	72	---	44	73	1620	2610	3500	7120	1600
30	268	106	147	70	---	43	92	1620	2560	2850	5250	1120
31	238	---	136	66	---	41	---	1680	---	2810	4580	---
TOTAL	28256	4965	2766	4407	2129	1529	1407	20099	67610	94130	144740	60910
MEAN	911.5	165.5	89.23	142.2	76.04	49.32	46.90	648.4	2254	3036	4669	2030
MAX	2230	239	156	281	140	107	92	1680	3040	4850	10100	3640
MIN	238	106	47	66	52	28	30	87	1640	2450	2380	1120
AC-FT	56050	9850	5490	8740	4220	3030	2790	39870	134100	186700	287100	120800
CFSM	10.7	1.94	1.05	1.67	0.89	0.58	0.55	7.62	26.5	35.7	54.9	23.9
IN.	12.35	2.17	1.21	1.93	0.93	0.67	0.62	8.79	29.55	41.15	63.27	26.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1338	345.6	155.2	113.5	90.52	91.81	137.8	648.0	1881	3006	3359	2665
MAX	2649	920	526	600	254	379	313	1227	2819	3835	4701	4100
(WY)	1987	1977	2000	1981	1977	1992	1994	1993	1969	1979	1990	1991
MIN	532	110	40.0	30.8	21.5	22.3	46.9	268	732	1939	2025	1380
(WY)	1969	1986	1984	1969	1969	1974	2002	1985	1985	1985	1985	1984

See Period of Record; partial years used in monthly summary statistics and break in record
e Estimated

15052500 MENDENHALL RIVER NEAR AUKE BAY—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1965 - 2002#	
ANNUAL TOTAL	394955		432948			
ANNUAL MEAN	1082		1186		1164	
HIGHEST ANNUAL MEAN					1547	1990
LOWEST ANNUAL MEAN					758	1985
HIGHEST DAILY MEAN	6030	Sep 14	10100	Aug 13	13700	Sep 8 1981
LOWEST DAILY MEAN	39	Feb 25	a28	Mar 22	19	Mar 1 1969
ANNUAL SEVEN-DAY MINIMUM	43	Apr 2	29	Mar 19	19	Mar 5 1974
MAXIMUM PEAK FLOW			10300	Aug 13	16000	Sep 11 1995
MAXIMUM PEAK STAGE			8.97	Aug 13	b11.18	Sep 11 1995
INSTANTANEOUS LOW FLOW			c28	Mar 22	d19	Mar 1 1969
ANNUAL RUNOFF (AC-FT)	783400		858800		843500	
ANNUAL RUNOFF (CFSM)	12.7		13.9		13.7	
ANNUAL RUNOFF (INCHES)	172.65		189.26		185.90	
10 PERCENT EXCEEDS	3180		2950		3210	
50 PERCENT EXCEEDS	236		205		385	
90 PERCENT EXCEEDS	52		44		48	

See Period of Record; partial years used in monthly summary statistics and break in record
a Mar. 22 and 23
b From floodmarks
c Mar. 22-24
d Mar. 1-3, 1969, and Mar. 7-11, 1974

15052800 MONTANA CREEK NEAR AUKE BAY

LOCATION.--Lat 58°23′53″, long 134°36′34″, in SE$\frac{1}{4}$ SW$\frac{1}{4}$ sec. 13, T. 40 S., R. 65 E. (Juneau B-2 NW quad.), Hydrologic Unit 19010301,On right bank 30 ft upstream from bridge on Mendenhall Loop Road, 1.2 mi upstream from mouth at Mendenhall River, 1.5 mi northeast of Auke Lake, and 3.9 mi downstream from McGinnis Creek.

DRAINAGE AREA.--14.1 mi^2.

PERIOD OF RECORD.-- August 1965 to September 1975, July 1983 to September 1987, Annual Maximum 1996 to 2000, November 2000 to current year.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WDR-99-1: 1996-98 (M).

GAGE.--Water-stage recorder. Elevation of gage is 40 ft above sea level, from topographic map.

REMARKS.--Records fair, except estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.-- Peak discharges greater than base discharge of 800 ft^3/s and maximum (*)

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jun 4	2145	870	14.07	Aug 12	2115	*1170	*14.77
Aug 7	1815	870	14.07	Aug 23	0400	892	14.13

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199	51	e29	e17	e19	e14	e12	101	208	129	58	209
2	255	93	e28	e16	e19	e14	e12	76	219	331	55	142
3	113	78	e26	e15	e18	e16	e11	50	204	232	50	97
4	87	58	e25	e15	e19	e19	e11	38	401	206	47	74
5	77	47	e24	22	e18	e16	e10	32	369	220	46	62
6	92	41	e23	41	e17	e14	e10	29	196	168	46	56
7	75	37	e22	62	e17	e13	e9.8	29	142	125	454	224
8	104	40	e23	105	e16	e13	e9.4	29	145	108	545	149
9	137	152	e24	66	e15	e13	e9.2	38	191	110	323	136
10	131	87	e25	78	e15	e12	e9.1	98	249	104	217	102
11	122	61	e24	51	e14	e12	e9.4	110	168	129	144	163
12	199	45	e23	40	114	e11	e9.7	142	125	109	619	105
13	123	39	e23	34	84	e11	e9.8	149	121	94	384	74
14	104	38	e22	33	94	e11	e10	138	152	154	157	62
15	87	39	e21	43	130	e11	e11	97	177	110	109	125
16	127	60	e19	59	157	e10	e11	102	163	84	75	105
17	250	72	e18	37	71	e10	e12	134	145	88	62	122
18	445	58	e17	44	43	e9.8	e13	132	129	81	74	349
19	422	44	e16	59	25	e9.7	19	165	107	67	76	222
20	163	40	e15	44	20	e9.5	62	205	103	74	90	217
21	298	41	e15	e40	18	e10	81	221	88	92	542	263
22	152	64	e14	e34	e18	e11	48	193	85	115	248	130
23	100	81	e13	e31	e18	e12	33	191	100	95	444	90
24	83	45	e14	e29	e17	e13	29	156	105	217	158	78
25	70	39	e45	e27	e16	e20	28	155	145	174	112	79
26	62	e39	e42	e26	e16	e25	28	167	192	136	151	81
27	58	e38	e40	e25	e15	e30	29	193	136	157	370	103
28	54	e37	e41	e29	e15	e23	41	269	103	142	357	76
29	82	e36	e27	e23	---	e19	68	237	97	108	360	66
30	62	e32	e21	e20	---	e16	95	168	99	77	255	54
31	53	---	e18	e19	---	e13	---	132	---	64	258	---
TOTAL	4386	1632	737	1184	1058	441.0	750.4	3976	4864	4100	6886	3815
MEAN	141.5	54.40	23.77	38.19	37.79	14.23	25.01	128.3	162.1	132.3	222.1	127.2
MAX	445	152	45	105	157	30	95	269	401	331	619	349
MIN	53	32	13	15	14	9.5	9.1	29	85	64	46	54
AC-FT	8700	3240	1460	2350	2100	875	1490	7890	9650	8130	13660	7570
CFSM	10.0	3.86	1.69	2.71	2.68	1.01	1.77	9.10	11.5	9.38	15.8	9.02
IN.	11.57	4.31	1.94	3.12	2.79	1.16	1.98	10.49	12.83	10.82	18.17	10.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	157.0	73.01	44.78	42.88	38.98	47.93	52.51	131.6	164.0	147.8	163.6	164.4
MAX	285	138	112	186	121	195	88.5	185	207	213	246	263
(WY)	1975	1975	1986	1985	1971	1972	1969	1972	1967	1975	1972	1987
MIN	89.7	21.4	15.9	5.02	7.52	9.64	25.0	72.6	71.1	52.5	69.2	70.9
(WY)	1969	1986	1972	1974	1972	1974	2002	1984	1971	1971	1968	1984

\# See Period of Record, partial years used in monthly statistics
e Estimated

15052800 MONTANA CREEK NEAR AUKE BAY—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1965 - 2002#	
ANNUAL TOTAL	33415		33829.4			
ANNUAL MEAN	91.55		92.68		103.7	
HIGHEST ANNUAL MEAN					131	1975
LOWEST ANNUAL MEAN					80.8	1971
HIGHEST DAILY MEAN	1300	Sep 13	619	Aug 12	1350	Sep 29 1970
LOWEST DAILY MEAN	12	Mar 25	9.1	Apr 10	3.4	Feb 8 1972
ANNUAL SEVEN-DAY MINIMUM	15	Dec 18	9.5	Apr 7	3.5	Jan 13 1974
MAXIMUM PEAK FLOW			1170	Aug 12	3800	Oct 20 1998
MAXIMUM PEAK STAGE			14.77	Aug 12	17.36	Oct 20 1998
INSTANTANEOUS LOW FLOW			a		3.2	Feb 8 1972
ANNUAL RUNOFF (AC-FT)	66280		67100		75150	
ANNUAL RUNOFF (CFSM)	6.49		6.57		7.36	
ANNUAL RUNOFF (INCHES)	88.16		89.25		99.96	
10 PERCENT EXCEEDS	175		208		224	
50 PERCENT EXCEEDS	63		62		77	
90 PERCENT EXCEEDS	20		13		14	

\# See Period of Record, partial years used in monthly statistics
a Not determined, see lowest daily mean

15052800 MONTANA CREEK NEAR AUKE BAY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1965-68, 1970-71, 1974-75, 2002

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
APR										
18...	1508	46.6	9.73	17	52	7.3	2.5	770	--	--
MAY										
07...	1343	51.5	9.96	29	60	7.3	3.0	769	12.9	95
JUN										
15...	1027	55.5	11.07	158	41	7.3	6.0	755	11.9	96

15053200 DUCK CREEK BELOW NANCY STREET NEAR AUKE BAY

LOCATION.--Lat 58°22′31″, long 134°34′38″, in NW 1/4 SW 1/4 NE 1/4 sec. 30, T. 40 S., R. 66 E. (Juneau B-2 NW), Hydrologic Unit 19010301, City and Borough of Juneau, on right bank, 50 ft south of intersection of Nancy Street and Mendenhall Loop Road, 0.4 mi north of intersection of Egan Drive and Mendenhall Loop Road, and 1.44 mi upstream from mouth.

DRAINAGE AREA.-- 1.30 mi^2.

PERIOD OF RECORD.--December 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 21.87 ft above sea level, determined by levels survey.

REMARKS.--No estimated daily discharges. Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	5.7	0.84	2.5	0.73	2.4	1.5	0.76	1.4	2.1	2.8	10
2	8.3	8.7	0.75	2.4	0.93	7.9	1.5	0.71	1.5	2.8	2.6	8.8
3	6.2	9.4	0.79	2.1	0.76	8.5	1.5	0.45	1.6	3.5	2.6	7.6
4	5.4	7.5	1.1	2.1	0.82	4.3	1.4	0.33	3.0	3.2	2.5	6.8
5	5.2	5.4	0.86	2.1	0.80	3.5	1.4	0.35	4.4	3.0	2.6	6.0
6	5.8	4.3	1.0	2.9	0.82	2.7	1.6	0.28	3.2	2.8	2.6	5.6
7	6.3	3.7	2.6	3.0	0.78	2.2	1.3	0.25	2.8	2.6	6.7	11
8	6.6	3.8	6.1	3.9	0.73	2.0	1.5	0.27	2.5	2.3	12	8.9
9	8.2	11	3.2	3.8	0.90	1.8	1.3	0.29	2.5	2.5	10	7.5
10	7.9	7.8	2.5	4.3	2.2	1.8	1.3	0.74	3.4	2.6	7.4	7.2
11	7.3	5.9	2.3	3.6	3.1	1.8	1.1	0.75	2.9	2.6	6.8	8.6
12	9.0	4.7	2.8	3.1	14	1.6	1.2	0.96	2.8	2.4	15	7.2
13	7.4	3.8	2.7	3.0	7.0	1.8	1.1	1.3	2.6	2.4	13	6.2
14	6.9	3.8	2.4	2.9	9.9	1.5	1.0	1.3	2.4	2.9	9.6	6.1
15	6.0	4.2	2.2	3.0	13	1.3	1.0	1.5	2.3	2.8	8.2	7.5
16	11	5.2	2.0	3.5	17	1.4	1.00	1.5	2.2	2.6	6.8	7.1
17	12	5.1	2.0	3.1	8.0	1.3	0.94	1.0	2.1	2.6	5.6	9.3
18	14	4.1	1.9	3.7	5.5	1.4	0.91	0.75	2.0	2.5	5.5	14
19	20	3.4	1.8	4.1	4.0	1.4	0.84	0.76	1.9	2.3	4.2	13
20	14	3.1	1.8	3.8	3.4	1.1	1.3	0.75	2.0	2.2	4.4	12
21	14	2.8	1.8	2.9	3.2	1.1	1.6	0.74	1.9	2.9	8.4	14
22	11	3.3	1.9	1.1	2.5	1.1	1.5	0.81	1.9	3.5	7.9	11
23	8.2	4.5	3.6	1.4	1.9	1.3	1.5	0.97	1.9	3.3	9.5	8.5
24	7.3	3.1	10	1.3	1.8	1.4	1.6	1.0	1.8	4.2	7.3	7.1
25	6.2	3.0	6.9	1.0	1.8	1.5	1.3	1.0	2.6	4.0	6.8	7.6
26	5.6	2.3	4.4	0.89	1.8	3.3	1.0	1.00	3.0	3.9	7.8	6.9
27	5.4	1.5	3.8	0.86	1.8	3.8	1.1	1.0	2.9	3.9	11	7.4
28	5.3	1.3	3.4	0.77	1.9	3.1	0.88	1.2	2.5	3.9	13	5.0
29	9.1	1.1	3.0	0.73	---	2.8	0.91	1.3	2.2	3.8	12	4.1
30	7.1	0.91	2.8	0.73	---	2.1	0.64	1.2	2.1	3.4	11	3.4
31	5.4	---	2.6	0.78	---	1.6	---	1.3	---	2.9	12	---
TOTAL	259.8	134.41	85.84	75.36	111.07	74.8	36.72	26.52	72.3	92.4	237.6	245.4
MEAN	8.381	4.480	2.769	2.431	3.967	2.413	1.224	0.855	2.410	2.981	7.665	8.180
MAX	20	11	10	4.3	17	8.5	1.6	1.5	4.4	4.2	15	14
MIN	5.2	0.91	0.75	0.73	0.73	1.1	0.64	0.25	1.4	2.1	2.5	3.4
AC-FT	515	267	170	149	220	148	73	53	143	183	471	487
CFSM	6.45	3.45	2.13	1.87	3.05	1.86	0.94	0.66	1.85	2.29	5.90	6.29
IN.	7.43	3.85	2.46	2.16	3.18	2.14	1.05	0.76	2.07	2.64	6.80	7.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.344	4.859	5.203	2.636	2.374	2.419	2.885	2.796	2.260	2.858	4.161	7.979
MAX	18.1	10.3	12.2	4.85	3.97	5.08	6.16	4.97	3.47	4.23	7.66	14.5
(WY)	2000	2000	2000	2000	2002	1994	1999	1999	1999	1997	2002	2000
MIN	5.29	2.36	1.95	0.85	0.79	0.94	1.22	0.86	1.20	1.75	1.31	3.81
(WY)	1998	1996	1996	1997	1999	1995	2002	2002	1998	1995	1994	1997

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1994 - 2002#	
ANNUAL TOTAL	1349.16		1452.22			
ANNUAL MEAN	3.696		3.979		4.153	
HIGHEST ANNUAL MEAN					6.90	2000
LOWEST ANNUAL MEAN					3.26	1995
HIGHEST DAILY MEAN	20	Oct 19	20	Oct 19	68	Dec 28 1999
LOWEST DAILY MEAN	0.75	Dec 2	0.25	May 7	0.19	Mar 15 2000
ANNUAL SEVEN-DAY MINIMUM	0.89	Nov 30	0.32	May 3	0.26	Mar 10 2000
MAXIMUM PEAK FLOW			27	Feb 16	80	Dec 28 1999
MAXIMUM PEAK STAGE			5.72	Feb 16	6.80	Dec 28 1999
MAXIMUM PEAK STAGE			5.73	Oct 19	a7.59	Sep 25 1996
INSTANTANEOUS LOW FLOW			b0.22	May 6	c0.18	Mar 8 1999
ANNUAL RUNOFF (AC-FT)	2680		2880		3010	
ANNUAL RUNOFF (CFSM)	2.84		3.06		3.19	
ANNUAL RUNOFF (INCHES)	38.61		41.56		43.41	
10 PERCENT EXCEEDS	6.7		8.8		8.5	
50 PERCENT EXCEEDS	3.1		2.8		2.7	
90 PERCENT EXCEEDS	1.3		0.90		1.0	

See Period of Record; partial years used in monthly summary statistics
a Backwater caused by culvert, which was removed Apr. 1998
b May 6-9, 2002
c Mar. 8, 1999 and Mar. 14 and 15, 2000

15055500 ANTLER RIVER BELOW ANTLER LAKE NEAR AUKE BAY

LOCATION.--Lat 58°51′07″, long 134°42′31″, in $NE^1/_4$ $SE^1/_4$ $NE^1/_4$ sec. 10, T. 35 S., R. 64 E. (Juneau D-3 quad), Hydrologic Unit 19010301, in Tongass National Forest, 200 ft below outlet of Antler Lake, 10 mi northeast of Berners Bay, and located 32 mi northwest of Auke Bay.

DRAINAGE AREA.--26.0 mi^2, approximately.

PERIOD OF RECORD.--May 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 80 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	50	19	46	20	20	14	33	267	245	194	331
2	162	56	18	42	19	21	14	40	256	268	189	296
3	154	62	18	38	19	22	14	40	264	335	181	251
4	136	64	17	35	19	21	14	39	275	327	177	215
5	127	60	17	33	18	21	13	36	285	289	175	184
6	123	54	17	43	18	20	13	34	271	255	172	164
7	115	50	19	58	17	19	13	33	239	235	210	162
8	108	48	21	63	16	18	13	33	240	242	381	158
9	111	47	20	64	16	18	13	33	279	256	392	153
10	121	46	21	79	17	17	13	37	317	244	363	143
11	121	44	20	73	18	16	13	39	300	236	302	154
12	131	41	20	66	23	16	13	42	262	220	595	155
13	132	39	20	58	25	15	13	50	251	218	869	148
14	118	37	20	52	29	15	13	69	293	236	569	133
15	104	36	19	47	34	15	13	78	391	243	383	139
16	99	36	18	43	46	15	13	85	447	238	281	138
17	99	36	18	39	44	14	13	104	442	232	217	129
18	115	35	17	36	40	14	13	133	403	236	179	144
19	142	34	17	34	37	14	14	168	336	230	162	170
20	134	33	16	32	34	13	14	209	282	216	155	172
21	119	33	17	30	32	13	15	248	247	210	223	168
22	107	32	17	28	29	13	15	258	228	221	301	155
23	94	32	19	27	27	13	16	264	238	235	406	137
24	83	31	53	26	25	13	16	256	258	265	394	127
25	73	29	82	25	23	14	16	265	313	291	297	120
26	65	26	79	23	22	14	16	290	358	258	241	118
27	59	25	71	22	21	15	16	292	332	241	242	119
28	55	24	67	21	21	15	17	304	284	258	364	117
29	56	21	63	21	---	15	19	363	269	237	441	109
30	54	20	57	21	---	15	24	372	264	209	415	99
31	51	---	51	21	---	15	---	314	---	199	360	---
TOTAL	3296	1181	948	1246	709	499	436	4561	8891	7625	9830	4808
MEAN	106.3	39.37	30.58	40.19	25.32	16.10	14.53	147.1	296.4	246.0	317.1	160.3
MAX	162	64	82	79	46	22	24	372	447	335	869	331
MIN	51	20	16	21	16	13	13	33	228	199	155	99
AC-FT	6540	2340	1880	2470	1410	990	865	9050	17640	15120	19500	9540
CFSM	4.09	1.51	1.18	1.55	0.97	0.62	0.56	5.66	11.4	9.46	12.2	6.16
IN.	4.72	1.69	1.36	1.78	1.01	0.71	0.62	6.53	12.72	10.91	14.06	6.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	165.1	60.57	66.98	37.82	24.29	20.51	37.29	138.2	314.1	275.2	232.6	224.0
MAX	240	80.2	134	52.1	35.0	29.1	55.8	204	330	327	317	271
(WY)	1999	2001	2000	2001	2001	2001	1999	1998	1999	2000	2002	1999
MIN	104	39.4	30.6	21.2	11.5	14.6	14.5	90.1	290	215	189	160
(WY)	1998	2002	2002	1999	1999	1999	2002	2001	1998	1998	1998	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL TOTAL	46329		44030			
ANNUAL MEAN	126.9		120.6		133.6	
HIGHEST ANNUAL MEAN					147	2000
LOWEST ANNUAL MEAN					121	2002
HIGHEST DAILY MEAN	704	Sep 14	869	Aug 13	993	Oct 20 1998
LOWEST DAILY MEAN	16	Feb 25	a13	Mar 20	7.8	Mar 9 1999
ANNUAL SEVEN-DAY MINIMUM	16	Apr 11	13	Apr 5	8.0	Mar 5 1999
MAXIMUM PEAK FLOW			983	Aug 13	b1300	Oct 20 1998
MAXIMUM PEAK STAGE			33.45	Aug 13	34.07	Oct 20 1998
INSTANTANEOUS LOW FLOW			c12	Apr 4	7.8	Mar 9 1999
ANNUAL RUNOFF (AC-FT)	91890		87330		96810	
ANNUAL RUNOFF (CFSM)	4.88		4.64		5.14	
ANNUAL RUNOFF (INCHES)	66.29		63.00		69.83	
10 PERCENT EXCEEDS	322		291		314	
50 PERCENT EXCEEDS	65		57		82	
90 PERCENT EXCEEDS	18		15		18	

\# See Period of Record; partial years used in monthly summary statistics
a Mar. 20-24 and Apr. 5-18
b From rating curve extended above 600 cfs on basis of slope-area measurement at gage height 34.07 ft
c Apr. 4 and 5

15056030 KAKUHAN CREEK NEAR HAINES

LOCATION.--Lat 59°00′19″, long 135°11′02″, in SW1/4 NE1/4 SE1/4 sec. 14, T. 33 S., R. 61 E. (Skagway A-1 quad), Hydrologic Unit 19010301, in Tongass National Forest, about 200 ft upstream from mouth on east side of Lynn Canal, 19 mi southeast of Haines, and 60 mi northwest of Juneau.

DRAINAGE AREA.--1.53 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 25 ft above sea level, from topographic map.

REMARKS.--Records poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 16	unk	unk	unk	*Aug 23	unk	unk	unk
Aug 13	unk	unk	unk	Aug 28	unk	unk	unk

EXTREMES FOR WATER YEARS 1998-2001.-- Peak discharges above base of 50 ft^3/s and Maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul 22, 1998	0130	56	8.19				
Aug 08, 1998	0730	100	8.40	Dec 27, 1999	0045	*73	*8.28
Aug 31, 1998	1430	*242	*8.77	Sep 17, 2000	0345	65	8.24
Oct 20, 1998	0730	*202	*8.69	Oct 06, 2000	0400	55	8.18
Oct 24, 1998	1130	77	8.30	Oct 12, 2000	1600	*185	*8.65
Aug 17, 1999	1745	50	8.15	Jul 22, 2001	0600	75	8.29
Aug 28, 1999	1515	73	8.28	Aug 27, 2001	0515	71	8.27
Sep 18, 1999	2145	153	8.57	Sep 13, 2001	0600	123	8.48
Sep 22, 1999	1030	193	8.67				

REVISIONS.-- The maximum discharge for the water years 1998-2001 have been revised as shown in the following table. They supersede figures published in the reports for 1998-2001.

Water year	Date	Discharge (ft^3/s)	Gage height (ft)
#1997	Sep 23, 1997	222	8.73
1998	Aug 31, 1998	242	8.77
1999	Oct 20, 1998	202	8.69
2000	Dec 27, 1999	73	8.28
2001	Oct 12, 2000	185	8.65

See Period of Record; 1997 is a partial year.

15056030 KAKUHAN CREEK NR HAINES—Coutinued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e9.0	2.5	e0.80	0.98	0.62	0.58	0.51	4.5	e20	e22	e18	25
2	e11	2.7	e0.70	0.90	0.61	0.62	0.47	3.1	e19	e35	e17	20
3	e10	2.9	e0.70	0.89	0.59	0.61	0.46	1.7	e20	e26	e16	18
4	e9.0	2.4	e0.70	0.88	0.61	e0.60	0.50	1.4	e21	e27	e16	15
5	8.8	2.1	e0.65	0.87	0.60	e0.58	0.52	1.2	e19	e28	e17	14
6	7.5	2.0	e0.65	1.6	0.59	e0.54	0.54	1.3	e17	e23	e25	13
7	6.5	2.0	e0.65	2.0	0.57	e0.54	0.52	1.4	e19	e20	e55	14
8	6.5	2.0	e0.60	1.4	e0.49	e0.52	0.47	1.6	e19	e19	e54	14
9	6.1	2.0	e0.60	1.2	e0.50	e0.51	0.47	1.8	e22	e20	e36	13
10	6.0	2.3	e0.60	1.3	e0.54	e0.50	0.48	1.6	e25	e19	e28	11
11	6.8	2.2	e0.60	1.1	0.59	e0.50	0.49	1.7	e23	e17	e25	10
12	8.6	2.0	e0.60	0.97	0.68	e0.49	0.47	2.3	e19	e15	e94	9.4
13	7.4	e1.6	e0.60	0.88	0.62	e0.48	0.48	2.7	e21	e17	e155	8.5
14	6.7	e1.6	e0.60	0.85	0.65	e0.47	0.50	3.4	e25	e24	e60	8.8
15	6.6	e1.7	e0.57	0.86	0.68	e0.46	0.51	2.6	e33	e21	e47	12
16	6.6	e1.8	e0.57	0.86	0.74	e0.46	0.50	e4.6	e62	e18	e27	10
17	6.9	e1.7	e0.57	0.80	0.62	e0.45	0.52	e6.3	35	e20	e16	9.0
18	7.4	e1.6	e0.55	0.83	0.61	e0.44	0.53	e9.0	26	e17	e13	16
19	e9.8	e1.5	e0.55	0.81	0.59	e0.43	0.53	e12	20	e15	e11	10
20	e8.4	e1.4	e0.55	0.71	0.59	e0.42	0.56	e15	17	e14	e20	11
21	e7.5	e1.4	e0.55	e0.70	0.57	e0.41	0.58	e20	15	e16	e46	12
22	6.2	e1.4	e0.65	e0.67	e0.56	e0.40	0.58	e20	14	e17	e55	9.0
23	5.4	e1.4	0.96	e0.64	e0.53	e0.42	0.60	e19	17	e23	e78	8.5
24	5.0	e1.3	3.1	e0.60	e0.51	e0.43	0.61	e19	20	e42	e50	8.1
25	3.7	e1.2	1.8	e0.56	e0.50	0.50	0.63	e21	28	e39	e37	8.8
26	3.2	e1.2	1.5	e0.54	e0.49	0.52	0.66	e22	26	e35	e39	9.1
27	2.7	e1.1	1.4	e0.53	e0.50	0.51	0.73	e23	19	e30	e82	13
28	2.6	e1.0	1.6	e0.52	e0.44	0.50	1.0	e26	18	e28	e110	8.5
29	2.9	e0.90	1.4	e0.52	---	0.51	1.9	e31	17	e24	e46	7.2
30	2.6	e0.80	1.2	e0.54	---	0.50	3.6	e29	17	e20	e36	6.5
31	2.4	---	1.1	0.62	---	0.45	---	e25	---	e19	e31	---
TOTAL	199.8	51.70	27.67	27.13	16.19	15.35	20.92	334.2	673	710	1360	352.4
MEAN	6.445	1.723	0.893	0.875	0.578	0.495	0.697	10.78	22.43	22.90	43.87	11.75
MAX	11	2.9	3.1	2.0	0.74	0.62	3.6	31	62	42	155	25
MIN	2.4	0.80	0.55	0.52	0.44	0.40	0.46	1.2	14	14	11	6.5
AC-FT	396	103	55	54	32	30	41	663	1330	1410	2700	699
CFSM	4.21	1.13	0.58	0.57	0.38	0.32	0.46	7.05	14.7	15.0	28.7	7.68
IN.	4.86	1.26	0.67	0.66	0.39	0.37	0.51	8.13	16.36	17.26	33.07	8.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.393	3.004	2.835	1.262	0.965	1.068	2.021	7.498	22.27	30.47	29.40	17.46
MAX	14.9	4.16	5.70	1.63	1.28	1.76	3.85	10.8	25.2	37.5	43.9	23.8
(WY)	1999	1999	2000	2001	1998	1999	1999	2002	1999	1999	2002	1999
MIN	4.70	1.72	0.89	0.88	0.58	0.50	0.70	4.87	20.9	22.9	22.2	11.7
(WY)	1998	2002	2002	2002	2002	2002	2002	2001	2000	2002	2000	2002

\# See Period of Record; partial years used in monthly statistics
e Estimated

15056030 KAKUHAN CREEK NEAR HAINES—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002#	
ANNUAL TOTAL	3639.03		3788.36			
ANNUAL MEAN	9.970		10.38		10.76	
HIGHEST ANNUAL MEAN					13.3	1999
LOWEST ANNUAL MEAN					9.66	1998
HIGHEST DAILY MEAN	67	Sep 13	155	Aug 13	155	Aug 13 2002
LOWEST DAILY MEAN	0.36	Feb 24	0.40	Mar 22	0.36	Feb 24 2001
ANNUAL SEVEN-DAY MINIMUM	0.41	Feb 19	0.42	Mar 18	0.41	Feb 19 2001
MAXIMUM PEAK FLOW					a415	Aug 31 1998
MAXIMUM PEAK STAGE			b		8.77	Aug 31 1998
ANNUAL RUNOFF (AC-FT)	7220		7510		7790	
ANNUAL RUNOFF (CFSM)	6.52		6.78		7.03	
ANNUAL RUNOFF (INCHES)	88.48		92.11		95.54	
10 PERCENT EXCEEDS	30		26		30	
50 PERCENT EXCEEDS	2.8		2.2		3.8	
90 PERCENT EXCEEDS	0.60		0.51		0.71	

See Period of Record; partial years used in monthly statistics
a From a rating curve extended above 77 ft^3/s
b See highest daily mean

15056030 KAKUHAN CREEK NEAR HAINES—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1998 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1998 to current year.

INSTRUMENTATION.-- Electronic water-temperature recorder set for 15-minute recording interval.

REMARKS.-- Records represent water temperature at the sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross section on July 12. Temperature cross section found no variation. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 15.0°C, August 1-2, 1999; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 13.5°C, July 8 and August 5; minimum, 0.0°C, on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BK) (72103)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)
JULY							
12...	1028	15.6	1.0	7.74	15	8.0	12.5
12...	1029	15.6	5.0	7.74	15	8.0	12.5
12...	1030	15.6	10.0	7.74	15	8.0	12.5
12...	1031	15.6	15.0	7.74	15	8.0	12.5

TEMPERATURE, WATER (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER MAX	OCTOBER MIN	OCTOBER MEAN	NOVEMBER MAX	NOVEMBER MIN	NOVEMBER MEAN	DECEMBER MAX	DECEMBER MIN	DECEMBER MEAN	JANUARY MAX	JANUARY MIN	JANUARY MEAN
1	7.0	6.0	6.5	2.5	1.0	2.0	0.0	0.0	0.0	1.5	1.5	1.5
2	7.0	5.5	6.5	2.5	2.5	2.5	0.0	0.0	0.0	1.5	1.0	1.0
3	7.5	5.0	6.0	2.5	2.0	2.5	0.0	0.0	0.0	2.0	1.5	1.5
4	9.0	6.5	7.5	2.0	1.5	2.0	0.0	0.0	0.0	1.5	1.0	1.5
5	8.5	7.0	7.5	1.5	0.5	1.5	0.0	0.0	0.0	1.5	0.5	1.0
6	7.5	5.5	6.5	0.5	0.0	0.5	0.0	0.0	0.0	2.5	1.5	2.0
7	6.0	5.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.0	2.5
8	6.5	5.0	5.5	1.0	0.0	0.0	0.5	0.0	0.0	2.5	2.0	2.0
9	6.5	5.0	5.5	1.5	0.5	1.0	0.5	0.0	0.5	2.5	2.0	2.5
10	6.5	5.5	6.0	2.0	1.5	2.0	0.5	0.5	0.5	2.5	2.0	2.5
11	5.5	3.0	4.5	2.5	1.0	2.0	0.5	0.5	0.5	2.5	2.0	2.0
12	5.0	3.0	4.0	1.0	0.5	0.5	0.5	0.5	0.5	2.0	1.5	2.0
13	5.5	4.0	4.5	1.0	0.5	0.5	0.5	0.5	0.5	2.0	1.5	1.5
14	5.0	3.5	4.0	1.5	0.5	1.0	0.5	0.0	0.5	2.0	1.5	2.0
15	3.5	2.5	3.0	2.5	1.5	2.0	0.0	0.0	0.0	2.0	2.0	2.0
16	3.0	2.0	2.5	2.5	2.0	2.5	0.0	0.0	0.0	2.0	1.0	2.0
17	5.0	2.5	4.0	2.5	2.0	2.0	0.0	0.0	0.0	1.0	0.5	1.0
18	6.0	5.0	5.5	3.0	2.5	3.0	0.5	0.0	0.5	1.5	0.5	1.0
19	5.0	3.5	4.5	3.0	2.5	2.5	0.5	0.5	0.5	2.0	1.5	1.5
20	4.0	3.5	3.5	3.0	2.5	3.0	1.0	0.5	0.5	1.5	0.0	0.5
21	3.5	3.0	3.5	3.5	3.0	3.5	1.0	0.5	1.0	0.0	0.0	0.0
22	4.5	3.0	4.0	3.5	3.0	3.0	1.0	0.5	1.0	0.0	0.0	0.0
23	3.5	2.5	3.0	3.5	2.5	3.0	1.0	0.0	0.5	0.0	0.0	0.0
24	2.5	2.0	2.5	2.5	1.5	2.0	0.5	0.0	0.5	0.0	0.0	0.0
25	2.5	1.0	1.5	1.5	0.0	0.5	1.5	0.5	1.0	0.0	0.0	0.0
26	1.0	0.5	1.0	0.0	0.0	0.0	1.5	1.0	1.0	0.0	0.0	0.0
27	0.5	0.5	0.5	0.0	0.0	0.0	1.5	1.5	1.5	0.0	0.0	0.0
28	0.5	0.0	0.5	0.0	0.0	0.0	1.5	1.5	1.5	0.0	0.0	0.0
29	2.0	0.5	1.5	0.0	0.0	0.0	1.5	1.5	1.5	0.5	0.0	0.0
30	1.5	1.0	1.5	0.0	0.0	0.0	1.5	1.5	1.5	0.5	0.0	0.5
31	1.5	0.5	1.0	---	---	---	1.5	1.5	1.5	0.5	0.5	0.5
MONTH	9.0	0.0	4.0	3.5	0.0	1.5	1.5	0.0	0.5	2.5	0.0	1.1

15056030 KAKUHAN CREEK NEAR HAINES—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.5	0.5	0.5	1.0	0.5	1.0	0.0	0.0	0.0	5.5	3.0	3.5
2	0.5	0.5	0.5	1.0	1.0	1.0	0.0	0.0	0.0	3.0	1.0	2.0
3	0.5	0.5	0.5	1.0	0.5	1.0	0.0	0.0	0.0	1.5	0.5	1.0
4	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.5	0.5	1.0
5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5
6	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.5	1.0
7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.5	2.5
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	2.0	3.0
9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.0	3.5
10	0.5	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	4.0	3.0	3.5
11	0.5	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.5	4.0	3.0	3.5
12	1.0	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.5	4.5	3.0	3.5
13	1.0	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.5	5.0	3.5	4.5
14	1.0	1.0	1.0	0.0	0.0	0.0	1.0	0.5	0.5	4.5	3.5	4.0
15	1.0	0.5	0.5	0.0	0.0	0.0	1.0	0.5	0.5	5.0	3.5	4.0
16	1.0	0.5	0.5	0.0	0.0	0.0	1.0	0.5	0.5	7.0	3.5	5.0
17	0.5	0.5	0.5	0.0	0.0	0.0	1.0	0.5	0.5	7.0	4.5	5.5
18	0.5	0.5	0.5	0.0	0.0	0.0	1.0	0.5	1.0	7.5	4.0	5.0
19	0.5	0.0	0.5	0.0	0.0	0.0	1.5	1.0	1.0	7.5	4.5	5.5
20	0.5	0.0	0.5	0.0	0.0	0.0	1.5	1.5	1.5	8.0	4.5	6.0
21	0.5	0.0	0.5	0.0	0.0	0.0	2.0	1.0	1.5	6.0	4.5	5.5
22	0.0	0.0	0.0	0.5	0.0	0.0	2.0	1.0	1.0	6.5	5.0	5.5
23	0.0	0.0	0.0	0.5	0.0	0.0	2.0	0.5	1.0	6.5	4.5	5.5
24	0.0	0.0	0.0	0.5	0.0	0.0	2.5	1.0	1.5	7.5	4.5	5.5
25	0.0	0.0	0.0	0.5	0.0	0.5	2.0	1.0	1.5	8.5	4.5	6.0
26	0.5	0.0	0.0	0.5	0.5	0.5	2.0	0.5	1.0	7.5	5.0	6.0
27	0.5	0.0	0.5	0.5	0.5	0.5	2.5	1.0	1.5	7.0	5.0	6.0
28	0.5	0.5	0.5	0.5	0.5	0.5	3.5	1.5	2.0	6.0	5.0	5.5
29	---	---	---	0.5	0.5	0.5	4.5	2.0	2.5	6.5	5.0	5.5
30	---	---	---	0.5	0.5	0.5	4.5	2.0	3.0	6.5	4.5	5.5
31	---	---	---	0.5	0.0	0.0	---	---	---	7.0	4.0	5.5
MONTH	1.0	0.0	0.4	1.0	0.0	0.2	4.5	0.0	0.8	8.5	0.0	4.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6.0	5.0	5.5	9.0	7.5	8.0	12.0	7.5	9.5	9.0	7.0	8.0
2	6.5	5.0	6.0	8.0	6.5	7.5	11.5	7.5	9.0	10.5	6.5	8.5
3	8.5	5.5	6.5	8.5	6.0	7.0	12.5	8.0	10.0	10.0	7.5	8.5
4	7.0	5.0	6.0	9.0	7.0	8.0	13.0	8.0	10.0	10.5	6.5	8.0
5	8.5	5.0	6.0	8.5	7.0	7.5	13.5	8.5	10.5	10.0	7.5	8.5
6	7.0	5.0	6.0	10.5	7.5	9.0	11.0	9.5	10.0	8.5	7.5	8.0
7	9.0	5.0	6.5	13.0	6.5	9.5	9.5	8.5	9.0	8.5	7.0	7.5
8	10.0	6.0	7.5	13.5	8.0	10.5	10.0	8.5	9.0	8.0	7.0	7.5
9	7.0	6.0	7.0	10.5	7.5	9.0	9.5	8.0	8.5	9.5	6.5	8.0
10	7.0	5.5	6.0	9.5	6.5	8.0	9.5	7.5	8.5	8.0	7.0	7.5
11	6.0	5.0	6.0	9.0	7.5	8.5	9.0	8.0	8.5	8.5	7.0	7.5
12	9.0	5.0	6.5	12.0	7.5	9.0	11.0	9.0	10.0	9.0	7.0	7.5
13	11.0	5.5	8.0	9.5	8.0	8.5	11.0	8.5	9.0	8.5	6.5	7.5
14	12.0	7.0	9.0	10.0	8.0	9.0	11.5	8.0	9.0	7.5	6.0	7.0
15	12.0	7.5	9.0	10.5	7.5	9.0	10.5	6.5	8.5	8.0	6.5	7.0
16	12.0	7.0	9.0	11.0	7.5	9.5	10.5	6.5	8.0	8.0	7.0	7.5
17	11.0	7.0	8.5	10.5	8.0	9.5	8.5	7.0	8.0	8.0	7.0	7.5
18	8.0	6.5	7.0	12.0	8.0	9.5	9.0	8.0	8.5	7.0	6.0	6.5
19	8.0	6.5	7.0	12.0	8.0	10.0	10.0	8.0	9.0	7.5	6.0	6.5
20	8.0	6.0	7.0	11.5	8.0	10.0	9.0	8.5	8.5	7.5	6.5	7.0
21	8.0	6.0	7.0	10.5	9.0	10.0	10.0	8.5	9.0	8.5	6.0	7.0
22	11.0	6.0	8.5	11.5	9.0	10.0	9.5	8.5	9.0	7.5	5.5	6.5
23	11.0	7.5	9.0	11.5	9.5	10.5	10.0	7.0	8.5	8.0	6.5	7.0
24	9.5	7.5	8.5	11.0	8.5	10.5	8.5	6.5	7.5	8.5	7.5	7.5
25	9.0	6.5	7.5	10.0	8.0	9.0	9.0	7.0	8.0	8.0	7.5	8.0
26	8.0	6.5	7.5	9.0	8.0	8.5	9.5	7.5	8.5	8.5	7.5	8.0
27	8.5	6.5	7.5	10.0	7.5	8.5	10.5	9.0	9.5	9.5	6.5	8.0
28	11.5	6.5	8.5	9.0	7.0	8.0	9.5	8.0	8.5	7.5	5.5	6.5
29	12.0	8.0	9.0	9.5	7.0	8.5	9.5	8.0	8.5	8.0	5.5	6.5
30	9.0	7.5	8.0	12.5	8.5	10.0	8.5	7.5	8.0	6.5	5.0	5.5
31	---	---	---	13.0	9.0	10.5	9.0	7.5	8.0	---	---	---
MONTH	12.0	5.0	7.4	13.5	6.0	9.0	13.5	6.5	8.8	10.5	5.0	7.4

15057580 KAHTAHEENA RIVER ABOVE UPPER FALLS NEAR GUSTAVUS

LOCATION.--Lat 58°26'37", long 135°36'01", in $SW^1/_4$ $SE^1/_4$ $SE^1/_4$ sec. 36, T. 39 S., R. 59 E. (Juneau B-5 quad), Hydrologic Unit 19010302, in Glacier Bay National Park and Preserve, 1.7 miles above the mouth at Icy Passage, 4.5 mi east of Gustavis, and 44 mi west of Juneau.

DRAINAGE AREA.--10.1 mi^2

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and those above 180 ft^3/s, which are poor. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	25	e12	20	e7.8	e8.5	e8.5	87	109	36	31	158
2	92	69	e11	19	e7.7	e24	e8.4	49	122	90	26	113
3	55	46	e10	21	e7.5	e17	e8.3	33	128	170	22	74
4	44	29	e11	25	e7.4	e14	e7.8	25	190	175	20	55
5	36	22	e12	26	e7.3	e11	e7.5	22	209	118	18	44
6	46	19	e13	68	e7.2	e10	e7.4	22	168	73	17	39
7	35	17	e20	57	e7.1	e9.5	e7.3	23	123	53	263	86
8	47	18	e36	57	e9.0	e9.0	e7.3	25	99	42	206	61
9	39	23	e25	47	e13	e8.5	e7.3	31	113	37	171	50
10	38	33	e14	49	e16	e8.0	e7.4	56	147	36	110	44
11	59	24	e15	33	e14	e7.6	e7.8	73	107	33	76	52
12	144	18	e13	26	e70	e7.4	e8.6	88	78	29	718	41
13	84	16	e11	22	e33	e7.2	e9.5	136	71	28	342	35
14	61	16	e8.5	20	e56	e6.9	e10	112	78	53	241	33
15	49	19	e7.5	32	e58	e6.7	e11	88	85	40	116	49
16	73	22	e6.4	39	e86	e6.5	e11	110	76	34	73	83
17	126	22	e6.0	22	25	e6.3	e12	142	64	34	54	53
18	272	17	e5.6	23	16	e6.0	e13	145	62	34	51	257
19	213	16	e5.3	25	13	e6.0	e18	188	62	30	43	143
20	114	18	e5.6	19	e11	e5.8	e25	238	68	24	50	116
21	78	18	e6.0	e16	e10	e5.8	e26	232	56	30	206	247
22	60	25	e7.4	e15	e9.0	e5.7	e22	174	46	33	157	114
23	46	38	e9.0	e12	e8.3	e5.6	e20	155	43	35	260	76
24	41	24	e100	e12	e7.6	e5.5	e20	127	50	174	134	58
25	34	e19	e60	e11	e7.0	e6.3	e19	127	73	250	86	50
26	29	e16	e50	e10	e8.6	e7.8	e20	128	75	333	65	46
27	25	e15	e42	e10	e8.2	e10	23	112	68	166	82	43
28	24	e14	e36	e9.5	e7.8	e9.6	29	167	55	97	108	38
29	33	e13	31	e8.8	---	e9.0	34	182	44	67	103	36
30	24	e12	26	e8.4	---	e9.0	39	136	42	49	104	32
31	20	---	23	e8.0	---	e8.7	---	93	---	38	122	---
TOTAL	2099	683	638.3	770.7	538.5	268.9	455.1	3326	2711	2441	4075	2326
MEAN	67.71	22.77	20.59	24.86	19.23	8.674	15.17	107.3	90.37	78.74	131.5	77.53
MAX	272	69	100	68	86	24	39	238	209	333	718	257
MIN	20	12	5.3	8.0	7.0	5.5	7.3	22	42	24	17	32
MED	47	19	12	21	9.0	7.8	11	112	75	40	103	52
AC-FT	4160	1350	1270	1530	1070	533	903	6600	5380	4840	8080	4610
CFSM	6.70	2.25	2.04	2.46	1.90	0.86	1.50	10.6	8.95	7.80	13.0	7.68
IN.	7.73	2.52	2.35	2.84	1.98	0.99	1.68	12.25	9.99	8.99	15.01	8.57
MEAN	98.9	52.3	82.2	29.5	17.1	21.4	31.0	74.2	108	70.3	44.1	105
MAX	121	54.9	128	40.4	23.4	22.7	37.8	90.6	114	79.1	61.6	128
(WY)	2000	2000	2000	2001	2001	2000	2000	2000	2000	2000	2000	1999
MIN	77.1	49.7	36.7	18.7	11.0	20.0	24.2	57.9	103	61.5	26.7	84.5
(WY)	2001	2001	2001	2000	2000	2001	2001	2001	2001	2001	2001	2001

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	88.51	42.47	61.68	27.96	17.81	17.13	25.72	85.26	102.4	73.10	73.25	97.85
MAX	121	54.9	128	40.4	23.4	22.7	37.8	107	114	79.1	131	128
(WY)	2000	2000	2000	2001	2001	2000	2000	2002	2000	2000	2002	1999
MIN	67.7	22.8	20.6	18.7	11.0	8.67	15.2	57.9	90.4	61.5	26.7	77.5
(WY)	2002	2002	2002	2000	2000	2002	2002	2001	2002	2001	2001	2002

\# See Period of Record, partial years used in monthly statistics
e Estimated

15057580 KAHTAHEENA RIVER ABOVE UPPER FALLS NEAR GUSTAVUS—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002#	
ANNUAL TOTAL	16820.1		20332.5			
ANNUAL MEAN	46.08		55.71		58.83	
HIGHEST ANNUAL MEAN					70.3	2000
LOWEST ANNUAL MEAN					50.5	2001
HIGHEST DAILY MEAN	283	Sep 13	718	Aug 12	1110	Dec 27 1999
LOWEST DAILY MEAN	5.3	Dec 19	5.3	Dec 19	5.0	Mar 10 2000
ANNUAL SEVEN-DAY MINIMUM	6.0	Dec 16	5.8	Mar 18	5.8	Mar 18 2002
MAXIMUM PEAK FLOW			1610	Aug 12	a1650	Dec 27 1999
MAXIMUM PEAK STAGE			30.49	Aug 12	30.52	Dec 27 1999
INSTANTANEOUS LOW FLOW			b		5.0	Mar 10 2000
ANNUAL RUNOFF (AC-FT)	33360		40330		42620	
ANNUAL RUNOFF (CFSM)	4.56		5.52		5.82	
ANNUAL RUNOFF (INCHES)	61.95		74.89		79.14	
10 PERCENT EXCEEDS	95		136		127	
50 PERCENT EXCEEDS	33		33		37	
90 PERCENT EXCEEDS	11		7.7		10	

\# See Period of Record, partial years used in monthly statistics
a From rating curve extended above 130 ft^3/s
b Undetermined, see lowest daily value

15057580 KAHTAHEENA RIVER ABOVE UPPER FALLS NEAR GUSTAVUS—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1999 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1999 to current year.

INSTRUMENTATION.-- Electronic water-temperature recorder set for 1-hour recording interval.

REMARKS.--Records represent water temperature at the sensor within 0.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 13.5°C, August 13-15, 2001; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 12.0°C, August 5; minimum, 0.0°C, on many days during the winter.

WATER TEMPERATURE, WATER (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.5	7.0	7.0	3.5	2.5	3.0	0.5	0.5	0.5	1.5	1.0	1.0
2	7.5	6.5	7.0	3.0	2.5	3.0	0.5	0.0	0.5	1.5	1.5	1.5
3	7.0	6.5	7.0	3.5	2.5	3.0	0.5	0.0	0.0	1.5	1.0	1.5
4	7.5	7.0	7.0	2.5	2.0	2.5	0.5	0.0	0.0	1.0	0.5	1.0
5	7.0	6.0	6.5	3.0	1.5	2.5	0.5	0.0	0.0	1.5	0.5	1.0
6	7.5	6.5	7.0	2.0	1.0	1.5	0.0	0.0	0.0	1.0	0.5	0.5
7	6.5	6.0	6.5	2.0	1.0	1.5	0.0	0.0	0.0	1.5	1.0	1.5
8	7.0	6.5	6.5	2.5	1.5	2.0	0.0	0.0	0.0	1.5	1.0	1.5
9	6.5	6.0	6.5	2.5	2.0	2.5	0.0	0.0	0.0	2.0	1.5	2.0
10	6.5	6.0	6.5	3.0	2.5	3.0	0.0	0.0	0.0	2.0	1.5	1.5
11	6.5	5.5	6.0	3.0	2.5	2.5	0.0	0.0	0.0	2.0	1.5	2.0
12	6.0	5.0	5.5	2.5	1.0	2.0	0.0	0.0	0.0	1.5	1.0	1.5
13	5.5	5.0	5.5	2.0	1.0	1.5	0.0	0.0	0.0	1.5	1.0	1.5
14	5.5	4.5	5.0	3.0	2.0	2.5	0.0	0.0	0.0	2.0	1.5	1.5
15	5.0	4.0	4.5	3.0	2.5	2.5	0.0	0.0	0.0	1.5	1.5	1.5
16	5.0	4.5	5.0	3.0	2.5	2.5	0.0	0.0	0.0	1.5	1.0	1.0
17	5.5	5.0	5.0	2.5	2.5	2.5	0.0	0.0	0.0	1.5	0.5	1.0
18	5.5	5.0	5.5	3.0	2.5	3.0	0.0	0.0	0.0	1.5	0.0	1.0
19	5.0	4.5	5.0	3.5	2.5	3.0	0.0	0.0	0.0	1.0	1.0	1.0
20	4.5	4.5	4.5	3.5	3.0	3.5	0.0	0.0	0.0	1.0	0.0	1.0
21	5.0	4.5	4.5	4.0	3.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
22	5.0	4.0	4.5	4.0	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
23	4.5	4.0	4.0	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
24	4.0	3.5	4.0	2.5	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
25	3.5	2.5	3.0	1.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
26	3.0	2.5	2.5	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
27	3.0	2.0	2.5	0.5	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.0
28	3.0	1.5	2.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
29	3.0	2.5	3.0	0.5	0.5	0.5	1.0	0.5	1.0	0.0	0.0	0.0
30	3.0	2.5	2.5	0.5	0.5	0.5	1.5	1.0	1.0	0.0	0.0	0.0
31	2.5	1.5	2.0	---	---	---	1.5	0.5	1.0	0.0	0.0	0.0
MONTH	7.5	1.5	5.0	4.0	0.0	2.1	1.5	0.0	0.1	2.0	0.0	0.8

15057580 KAHTAHEENA RIVER ABOVE UPPER FALLS NEAR GUSTAVUS—Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.5	1.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.5	1.5
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.5	1.5
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.5	1.5
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	1.5
6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	1.5
7	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.5	2.5
8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	1.0	2.5
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.5	2.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.5	2.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.5	2.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.5	2.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.0	2.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.0	2.5
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.0	2.5
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	2.5	3.0
17	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	2.0	3.0
18	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.0	3.5
19	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.5	3.5
20	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.5	3.5
21	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	2.5	3.5
22	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0	3.5
23	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0	3.5
24	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	5.5	3.0	4.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	6.5	2.5	4.5
26	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	5.0	3.5	4.5
27	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	5.0	3.5	4.0
28	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5	5.0	4.0	4.5
29	---	---	---	0.0	0.0	0.0	2.0	0.5	1.0	5.0	3.5	4.5
30	---	---	---	0.0	0.0	0.0	3.0	0.5	1.5	6.0	3.5	4.5
31	---	---	---	0.0	0.0	0.0	---	---	---	5.5	3.5	4.5
MONTH	0.5	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.1	6.5	0.0	2.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.0	4.0	4.5	8.0	7.0	7.5	10.5	7.0	9.0	9.0	8.0	8.5
2	5.5	4.0	4.5	8.0	6.5	7.5	11.0	8.0	9.0	9.0	7.0	8.0
3	6.5	4.0	5.0	8.0	7.0	7.5	10.5	8.0	9.0	9.0	7.5	8.5
4	6.0	4.5	5.0	7.0	6.5	7.0	11.5	7.5	9.5	8.5	6.5	7.5
5	6.0	4.0	5.0	7.5	6.0	6.5	12.0	7.5	9.5	9.0	7.0	8.0
6	5.0	4.5	4.5	7.5	6.0	7.0	11.0	9.0	10.0	8.5	7.5	8.0
7	6.5	4.0	5.0	9.5	5.5	7.5	10.0	9.0	10.0	9.5	8.0	9.0
8	6.0	4.5	5.5	10.0	6.5	8.5	9.5	9.0	9.0	9.0	8.0	8.5
9	5.5	5.0	5.5	9.0	8.0	8.5	9.0	8.0	8.5	9.0	8.0	8.5
10	5.5	5.0	5.0	8.0	7.0	7.5	8.5	7.5	8.0	8.5	7.5	8.0
11	5.5	4.5	5.0	8.5	7.5	8.0	8.5	7.5	8.0	8.5	7.5	8.0
12	7.0	4.5	5.5	9.5	7.0	8.0	10.0	8.5	9.5	9.0	7.5	8.0
13	8.5	4.0	6.5	8.5	7.5	8.0	8.5	7.5	8.0	8.5	7.0	8.0
14	9.5	5.0	7.0	8.5	8.0	8.0	9.0	8.0	8.0	7.5	6.0	7.0
15	9.5	5.5	7.5	9.5	7.5	8.5	9.0	7.0	8.0	8.5	7.0	7.5
16	9.5	6.0	7.5	9.0	7.5	8.0	8.5	7.5	8.0	8.5	8.0	8.0
17	9.5	6.0	7.5	9.0	7.5	8.0	7.5	7.0	7.5	8.0	7.5	8.0
18	7.5	6.0	6.5	9.5	8.0	8.5	8.5	7.5	8.0	8.0	7.0	7.5
19	6.5	6.0	6.0	11.0	8.0	9.0	8.5	7.5	8.0	7.5	6.5	7.0
20	7.0	5.5	6.0	11.0	7.0	9.0	8.5	7.5	8.0	7.5	7.0	7.0
21	7.5	5.5	6.5	10.0	8.5	9.0	10.0	8.0	9.5	8.0	6.5	7.5
22	9.0	5.5	7.5	10.0	9.0	9.5	9.0	8.0	8.5	7.0	6.0	6.5
23	9.0	7.0	8.0	10.0	9.0	9.5	9.5	8.0	9.0	7.5	7.0	7.0
24	8.0	7.0	7.5	10.5	9.0	10.0	8.0	7.0	7.5	7.5	7.0	7.0
25	9.0	7.0	8.0	9.0	8.0	8.5	8.0	7.5	7.5	8.0	7.0	7.5
26	8.0	7.0	7.5	8.0	7.0	7.5	8.0	7.5	8.0	8.0	7.5	8.0
27	8.5	6.5	7.5	8.0	7.0	7.5	9.5	8.0	8.5	8.5	7.5	8.0
28	9.5	6.5	8.0	8.0	7.0	7.0	9.5	9.0	9.5	7.5	7.0	7.5
29	9.0	6.5	8.0	8.0	6.5	7.5	9.5	8.5	9.0	7.0	5.5	6.0
30	8.5	7.0	8.0	9.5	7.0	8.0	9.0	8.0	8.5	6.5	4.5	6.0
31	---	---	---	9.5	7.0	8.5	9.0	8.5	8.5	---	---	---
MONTH	9.5	4.0	6.4	11.0	5.5	8.1	12.0	7.0	8.6	9.5	4.5	7.7

15070000 SWAN LAKE NEAR KETCHIKAN

LOCATION.--Lat 55°36′54″, long 131°20′14″, in SW $^1/_4$ NE $^1/_4$ sec. 20, T. 72 S., R. 92 E. (Ketchikan C-4 quad), Hydrologic Unit 19010102, Ketchikan Gateway Borough, on Revillagigedo Island, in Tongass National Forest, 0.7 mi upstream from mouth at Carroll Inlet, and 22 mi northeast of Ketchikan.

DRAINAGE AREA.--36.5 mi^2.

PERIOD OF RECORD.--September 1916 to January 1926, September 1927 to December 1933 and October 1946 to September 1959 (discharge). Published as "Swan Lake Outlet at Carroll Inlet" prior to 1946 and as "Falls Creek near Ketchikan" October 1946 to September 1959. Monthly discharges only for some periods, published in WSP 1372. October 1984 to current year (month end reservoir contents and monthly discharges).

REVISED RECORDS.--WSP 1372: Drainage area, 1918.

GAGE.--Non-recording lake-level staff gage. Datum of lake-level staff gage is at sea level. Totalizing MWH meters on the two turbines in Swan Lake Powerhouse. September 1916 to January 1926 and September 1927 to December 1933 at site 1,500 ft downstream at different datum. October 1946 to September 1959, recording gage at site 2,500 ft downstream, elevation of gage was 130 ft above sea level, from topographic map.

REMARKS.--Reservoir is formed by a concrete arch dam located at the outlet of Swan Lake; construction began in August 1980 and was completed in March 1983. Total and usable capacities below spillway crest of 330 ft are 126,200 and 82,800 acre-ft, respectively. Reservoir is used for power. Discharge released through turbines is computed from relation between discharge, head, and power generation; release flow enters directly into Carroll Inlet and is not returned to stream. Spill is computed from a theoretical relation between discharge and stage above crest of the spillway. Turbine and spillway ratings and reservoir capacity table furnished by the City of Ketchikan in 1985.

COOPERATION.--Reservoir elevations and release flow provided by the City of Ketchikan.

AVERAGE DISCHARGE.--46 years (water years 1917-25, 1928-33, 1947-59, 1985-2002), 444 ft^3/s, 165.2 in/yr, 321,700 acre-ft/yr. Mean discharge for water years 1985-2002 adjusted for change in contents of Swan Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 132,200 acre-ft, November 29, 1987, elevation, 334.2 ft; minimum contents observed, 51,770 acre-ft, September 22, 1993, elevation, 278.4 ft. Maximum discharge, about 5,500 ft^3/s, November 1, 1917; minimum daily discharge, 19 ft^3/s, February 21 to 25, 1925. Maximum daily discharge since construction of dam, 3,680 ft^3/s, November 30, 1988; no flow released several days most years.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 130,222 acre-ft, September 23, 2002, elevation, 332.80 ft; minimum contents observed, 63,806 acre-ft, March 18-19, 2002, elevation, 286.9 ft. Maximum release from reservoir (mean daily, not adjusted for changes in storage),1,399 ft^3/s, September 22, 2002; minimum release, 97.0 ft^3/s.

MONTH END RESERVOIR ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS, IN ACRE FEET

WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ELEVATION	CONTENTS	CHANGE IN CONTENTS
Sep 30	333.9	131,880	
Oct 31	330.9	127,620	-4,260
Nov 30	327.1	121,970	-5,650
Dec 31	319.2	110,550	-11,420
Jan 31	311.4	99,260	-11,290
Feb 28	299.4	80,900	-18,360
Mar 31	288.7	66,420	-14,480
Apr 30	292.9	72,470	+6,050
May 31	312.2	100,420	+27,950
Jun 30	311.9	99,980	-440
Jul 31	326.9	121,680	+21,700
Aug 31	331.2	127,910	+6,230
Sep 30	330.2	126,460	-1,450
		CAL YR 2001	2,170
		WTR YR 2002	-5,420

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
MEAN VALUES

MONTH	RELEASE	SPILL	TOTAL	ADJUSTED
OCT	386	165	551	482
NOV	407	175	582	487
DEC	512	0	512	326
JAN	467	0	467	283
FEB	476	0	476	145
MAR	300	0	300	64
APR	113	0	113	215
MAY	343	0	343	798
JUN	389	0	389	382
JUL	453	13	466	819
AUG	408	62	470	571
SEP	352	311	663	639
CAL YR 2001	441	51.6	492	495
WTR YR 2002	384	60.3	444	437

15072000 FISH CREEK NEAR KETCHIKAN

LOCATION.--Lat 55°23'31", long 131°11'38", in $SW^1/_4SW^1/_4$ sec. 6, T. 75 S., R. 94 E. (Ketchikan B-4 quad.), Gateway Borough, Hydrologic Unit 19010102, on Revillagigedo Island, in Tongass National Forest, on right bank 250 ft upstream from outlet of Low Lake, 750 ft upstream from mouth at Thorne Arm, and 18 mi east of Ketchikan.

DRAINAGE AREA.--32.1 mi^2, excludes that of Granite Lake drainage basin.

PERIOD OF RECORD.--May 1915 to October 1936, October 1938 to current year. Prior to October 1945, monthly discharge only. Records of daily discharge prior to October 1945 are available in computer files of the Geological Survey. Prior to January 1921, published as "near Sea Level, Revillagigedo Island."

REVISED RECORDS.--WSP 1372: 1918.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above sea level, by barometer. Prior to October 1935, at site 150 ft downstream at different datum. October 1935 to October 3, 1975, at prior site and present datum.

REMARKS.--No estimated daily discharges. Records fair. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft^3/s and/or maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug 28	0200	*2450	*3.59	No other peak greater than base discharge			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1270	749	163	350	128	117	114	303	1690	635	200	931
2	879	837	146	313	232	115	103	364	1400	786	201	980
3	651	1010	140	367	258	146	95	364	1120	714	195	811
4	500	868	138	391	271	147	88	339	1060	604	181	622
5	401	723	135	350	220	127	86	300	1020	593	167	483
6	343	607	138	513	178	112	83	262	883	542	153	386
7	378	573	299	844	152	102	81	232	746	465	147	330
8	543	527	463	856	137	95	79	214	631	402	215	444
9	538	511	477	760	181	90	79	202	568	355	432	665
10	667	474	455	850	223	87	96	202	552	329	478	894
11	645	564	406	767	212	91	112	254	524	322	431	901
12	830	595	453	811	294	97	140	408	484	308	367	733
13	775	612	472	595	352	91	179	539	458	331	402	569
14	615	819	414	460	378	85	220	623	455	366	388	453
15	738	847	343	373	532	77	231	587	465	334	334	651
16	797	839	292	316	474	71	217	530	449	318	287	1140
17	697	707	256	274	384	66	199	541	427	394	249	1410
18	763	558	235	252	314	62	187	516	406	392	218	1520
19	705	496	215	237	298	58	185	483	380	355	195	1360
20	609	553	192	245	268	54	193	508	349	320	175	969
21	578	609	177	221	226	52	208	567	322	295	164	852
22	546	680	164	194	196	49	220	623	302	276	225	1430
23	474	605	245	182	172	48	214	650	303	257	523	1620
24	478	500	666	182	153	47	203	599	378	251	647	1140
25	452	413	857	164	143	97	188	550	732	281	960	782
26	542	340	798	147	135	179	178	533	903	262	1380	597
27	534	285	703	134	132	150	171	547	796	238	1920	509
28	675	243	625	122	124	137	172	768	643	228	2260	546
29	761	211	551	116	---	127	188	1190	541	228	1540	449
30	749	186	468	116	---	129	225	1720	505	226	1000	368
31	654	---	405	134	---	127	---	1630	---	213	925	---
TOTAL	19787	17541	11491	11636	6767	3032	4734	17148	19492	11620	16959	24545
MEAN	638.3	584.7	370.7	375.4	241.7	97.81	157.8	553.2	649.7	374.8	547.1	818.2
MAX	1270	1010	857	856	532	179	231	1720	1690	786	2260	1620
MIN	343	186	135	116	124	47	79	202	302	213	147	330
MED	645	584	343	313	221	95	178	530	532	329	334	758
AC-FT	39250	34790	22790	23080	13420	6010	9390	34010	38660	23050	33640	48690
CFSM	19.9	18.2	11.5	11.7	7.53	3.05	4.92	17.2	20.2	11.7	17.0	25.5
IN.	22.93	20.33	13.32	13.48	7.84	3.51	5.49	19.87	22.59	13.47	19.65	28.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	698.7	567.6	420.4	350.6	317.5	261.6	352.9	504.3	472.6	335.3	334.3	445.0
MAX	1326	1767	1081	975	944	673	655	867	764	718	767	966
(WY)	1975	1918	1931	1926	1993	1986	1949	1999	1951	1976	1972	2001
MIN	237	89.2	83.4	37.9	37.8	71.4	130	182	142	65.3	50.7	80.0
(WY)	1926	1974	1984	1950	1969	1969	1967	1998	1998	1958	1965	1965

\# See Period of Record

15072000 FISH CREEK NEAR KETCHIKAN—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1915 - 2002#	
ANNUAL TOTAL	178902		164752			
ANNUAL MEAN	490.1		451.4		422.7	
HIGHEST ANNUAL MEAN					556	1992
LOWEST ANNUAL MEAN					302	1978
HIGHEST DAILY MEAN	2910	Sep 23	2260	Aug 28	4410	Oct 15 1961
LOWEST DAILY MEAN	80	Feb 26	47	Mar 24	20	Sep 9 1928
ANNUAL SEVEN-DAY MINIMUM	92	Feb 20	53	Mar 18	23	Sep 5 1928
MAXIMUM PEAK FLOW			2450	Aug 28	a5400	Oct 15 1961
MAXIMUM PEAK STAGE			3.59	Aug 28	b5.85	Oct 15 1961
INSTANTANEOUS LOW FLOW			c46	Mar 24	20	Sep 9 1928
ANNUAL RUNOFF (AC-FT)	354900		326800		306300	
ANNUAL RUNOFF (CFSM)	15.3		14.1		13.2	
ANNUAL RUNOFF (INCHES)	207.33		190.93		178.93	
10 PERCENT EXCEEDS	868		851		864	
50 PERCENT EXCEEDS	427		373		320	
90 PERCENT EXCEEDS	151		123		98	

\# See Period of Record
a From rating curve extended above 3,600 ft^3/s
b At site then in use
c Mar. 24-25

15081495 NORTH FORK STANEY CREEK NEAR KLAWOCK

LOCATION.--Lat 55°43′58″, long 132°58′02″, in NE$^1/_4$ NE$^1/_4$ sec. 10, T. 71 S., R. 81 E. (Craig C-4 quad), Hydrologic Unit 19010103, on Prince of Wales Island, in Tongass National Forest, on left bank, immediately upstream from bridge on Forest Road 2050, 6 mi upstream from Middle Fork Staney Creek and 12.4 mi north of Klawock.

DRAINAGE AREA.--3.07 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1990 to current year.

REVISED RECORDS.--WDR AK-92-1: 1991. WDR AK-00-1: 1990(M), 1991-92(P), 1993, 1994-99(P).

GAGE.--Water-stage recorder. Elevation of gage is 600 ft above sea level, from topographic map.

REMARKS.--Records good except for those above 200 ft^3/s which are fair and estimated daily discharges which are poor.

EXTREMES FOR CURRENT YEAR.-- Peak discharges greater than base discharge of 350 ft^3/s (revised) and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 12	0200	362	4.43	Sep 16	1445	397	4.55
Feb 14	2000	*660	*5.32	Sep 21	1045	357	4.41
Aug 23	0445	368	4.45				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	53	1.3	9.3	4.9	5.2	e3.8	29	23	3.8	3.1	21
2	15	43	0.91	12	15	e4.7	e3.5	18	18	5.1	9.6	39
3	11	79	e1.0	14	22	e14	e3.2	12	18	3.0	10	11
4	8.3	15	e1.3	8.1	33	e6.6	e3.1	8.1	22	3.0	4.8	6.6
5	6.4	10	1.7	20	10	e4.3	2.7	6.1	15	4.9	3.0	4.7
6	8.9	6.8	1.9	58	4.5	e3.9	2.7	5.2	12	4.0	2.5	3.8
7	21	18	e47	42	3.0	e3.6	2.9	5.4	9.7	2.7	11	6.5
8	24	36	e35	24	4.1	e3.3	3.3	6.8	9.7	2.2	79	29
9	36	47	e27	13	23	e3.0	3.6	8.5	11	2.2	36	35
10	54	21	48	23	39	e2.8	7.7	16	10	2.1	11	31
11	49	12	30	8.3	46	e3.2	8.0	37	7.7	2.1	7.9	19
12	138	6.2	39	8.7	133	e3.4	11	77	7.5	1.8	8.4	9.1
13	15	17	19	6.5	26	e3.4	37	33	8.9	1.8	48	5.7
14	6.5	54	7.4	5.4	304	e3.2	26	20	9.4	1.8	11	6.9
15	55	20	5.2	6.0	123	e3.0	15	16	7.2	1.7	5.4	34
16	57	27	e4.3	9.7	23	e2.8	10	26	5.1	6.7	3.9	149
17	91	16	e3.9	5.6	11	e2.5	9.9	26	4.6	17	3.7	61
18	50	12	e3.6	14	7.9	e2.3	9.9	24	4.5	6.8	3.0	70
19	51	12	e3.4	15	6.8	e2.2	12	23	3.9	4.7	2.6	30
20	17	26	e3.4	8.2	6.3	e2.2	18	29	3.5	3.4	2.4	15
21	50	22	5.0	4.3	7.2	e2.0	22	28	3.3	5.9	9.3	137
22	15	25	8.2	e3.8	5.7	e1.8	15	25	3.4	11	54	57
23	10	8.7	e50	4.1	e5.5	e1.9	10	16	4.0	5.6	107	30
24	24	4.9	e130	6.2	e5.0	2.0	8.3	16	3.6	12	17	12
25	10	3.5	29	5.1	4.5	6.7	7.5	21	8.2	7.9	63	8.1
26	19	2.3	15	5.7	4.3	25	9.2	20	5.6	4.0	69	7.2
27	16	e1.8	24	e3.3	8.8	15	11	19	4.6	3.1	51	16
28	63	e1.6	23	e3.2	6.2	7.3	17	24	3.9	3.4	32	13
29	68	e1.5	18	e3.2	---	4.8	27	31	3.1	3.9	16	7.3
30	29	e1.3	13	e4.7	---	4.5	37	29	2.7	3.8	12	5.1
31	15	---	10	6.9	---	4.1	---	25	---	3.1	73	---
TOTAL	1056.1	603.6	609.51	361.3	892.7	154.7	357.3	680.1	253.1	144.5	769.6	880.0
MEAN	34.1	20.1	19.7	11.7	31.9	4.99	11.9	21.9	8.44	4.66	24.8	29.3
MAX	138	79	130	58	304	25	37	77	23	17	107	149
MIN	6.4	1.3	0.91	3.2	3.0	1.8	2.7	5.2	2.7	1.7	2.4	3.8
AC-FT	2090	1200	1210	717	1770	307	709	1350	502	287	1530	1750
CFSM	11.1	6.55	6.40	3.80	10.4	1.63	3.88	7.15	2.75	1.52	8.09	9.55
IN.	12.80	7.31	7.39	4.38	10.82	1.87	4.33	8.24	3.07	1.75	9.33	10.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	34.3	23.8	27.0	25.4	21.3	15.8	17.3	15.0	8.98	5.84	11.0	25.5
MAX	61.1	40.2	49.1	48.9	51.7	35.1	29.7	33.8	21.0	11.8	24.8	45.1
(WY)	2000	1994	1991	1997	1993	1994	1997	1999	1999	1997	2002	1994
MIN	18.5	13.0	11.5	11.7	7.51	4.99	7.76	3.87	1.59	1.46	1.80	10.4
(WY)	1993	1997	1997	2002	2000	2002	1998	1998	1993	1993	1993	1993

\# See Period of Record; partial years used in monthly summary statistics.
e Estimated

15081495 NORTH FORK STANEY CREEK NEAR KLAWOCK—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002#	
ANNUAL TOTAL	7115.20		6762.51			
ANNUAL MEAN	19.5		18.5		19.4	
HIGHEST ANNUAL MEAN					24.7	1994
LOWEST ANNUAL MEAN					15.4	1996
HIGHEST DAILY MEAN	218	Sep 30	304	Feb 14	793	Oct 26 1993
LOWEST DAILY MEAN	0.91	Dec 2	0.91	Dec 2	0.38	Jul 21 1993
ANNUAL SEVEN-DAY MINIMUM	0.98	Aug 11	1.3	Nov 28	0.49	Jul 15 1993
MAXIMUM PEAK FLOW			660	Feb 14	a1110	Jan 29 1993
MAXIMUM PEAK STAGE			5.32	Feb 14	6.34	Jan 29 1993
INSTANTANEOUS LOW FLOW			0.71	Dec 2	b0.37	Jul 20 1993
ANNUAL RUNOFF (AC-FT)	14110		13410		14040	
ANNUAL RUNOFF (CFSM)	6.35		6.03		6.31	
ANNUAL RUNOFF (INCHES)	86.22		81.94		85.77	
10 PERCENT EXCEEDS	48		47		44	
50 PERCENT EXCEEDS	11		9.3		9.4	
90 PERCENT EXCEEDS	2.1		2.9		2.2	

See Period of Record; partial years used in monthly summary statistics
a From rating extended above 140 ft^3/s
b Jul. 20 and 21, 1993

15081495 NORTH FORK STANEY CREEK NEAR KLAWOCK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1991 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1990 to current year.

INSTRUMENTATION.--Electronic water temperature recorder since November 20, 1990, set for 2-hour recording interval. New water temperature recorder installed April 11, 1996 with a 15-minute recording interval.

REMARKS.--Records represent water temperature at sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross sections on October 29 and April 2. No variation was found within the cross section on October 29 and a variation of 0.5°C was found on April 2. No variation was found between mean stream temperature and sensor temperature.Variation in the cross section on April 2 was likely caused by shore ice.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE.--Maximum recorded, 18.5°C, June 30, 1992, July 16, 1993, and July 2-4, 1998; minimum, 0.0°C, on many days during winters.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE.--Maximum, 15.0°C July 9; minimum, 0.0°C, on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	STREAM WIDTH (FT) (00004)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)
Oct							
29...	1432	20.7	2.3	2.50	27.7	3.5	2.5
29...	1433	20.7	6.3	2.50	27.7	3.5	2.5
29...	1434	20.7	10.3	2.50	27.7	3.5	2.5
29...	1435	20.7	14.3	2.50	27.7	3.5	2.5
29...	1436	20.7	18.3	2.50	27.7	3.5	2.5
Apr							
2...	1250	21.0	10.0	1.96	3.5	1.0	0.0
2...	1251	21.0	15.0	1.96	3.5	1.5	0.0
2...	1252	21.0	20.0	1.96	3.5	1.5	0.0
2...	1253	21.0	25.0	1.96	3.5	1.5	0.0

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	7.5	7.5	4.0	3.5	3.5	0.0	0.0	0.0	2.0	1.5	1.5
2	8.5	7.5	8.0	3.5	3.0	3.0	0.0	0.0	0.0	2.0	1.5	1.5
3	9.0	7.5	8.0	3.5	2.5	3.5	0.0	0.0	0.0	2.0	1.5	1.5
4	8.0	6.5	7.5	3.0	2.5	2.5	0.0	0.0	0.0	1.5	1.0	1.0
5	8.0	6.5	7.5	2.5	2.0	2.0	0.0	0.0	0.0	2.5	1.5	2.0
6	8.0	7.5	7.5	2.0	2.0	2.0	0.0	0.0	0.0	2.0	1.5	2.0
7	7.5	7.0	7.0	2.5	1.5	2.5	0.0	0.0	0.0	2.0	2.0	2.0
8	7.5	7.0	7.5	3.0	2.5	3.0	0.0	0.0	0.0	2.0	1.5	2.0
9	7.5	7.0	7.0	3.5	2.5	3.0	0.0	0.0	0.0	2.5	2.0	2.5
10	7.5	6.5	7.0	4.0	3.0	3.5	0.0	0.0	0.0	2.5	1.5	1.5
11	7.0	6.0	6.5	3.0	2.5	3.0	0.0	0.0	0.0	2.0	0.0	1.0
12	7.0	6.0	6.5	3.0	2.5	3.0	0.0	0.0	0.0	0.5	0.0	0.0
13	6.0	5.5	6.0	4.0	3.0	3.5	0.0	0.0	0.0	1.0	0.5	0.5
14	6.0	5.0	5.5	3.5	3.5	3.5	0.0	0.0	0.0	1.0	0.5	1.0
15	6.5	5.5	6.0	3.5	3.0	3.5	0.0	0.0	0.0	1.5	1.0	1.0
16	6.0	5.5	6.0	3.0	2.0	2.5	0.0	0.0	0.0	1.0	1.0	1.0
17	6.0	5.0	5.5	3.0	2.0	2.5	0.0	0.0	0.0	1.5	1.0	1.0
18	6.5	6.0	6.5	3.0	2.5	3.0	0.0	0.0	0.0	1.5	1.0	1.5
19	6.0	5.5	6.0	4.0	3.0	3.5	0.0	0.0	0.0	1.0	0.5	1.0
20	5.5	5.0	5.5	4.0	4.0	4.0	0.0	0.0	0.0	1.0	1.0	1.0
21	5.5	5.0	5.5	4.0	4.0	4.0	0.0	0.0	0.0	1.0	0.0	0.5
22	5.5	5.0	5.0	4.0	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
23	5.0	4.5	5.0	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
24	4.5	4.0	4.5	3.0	2.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0
25	4.0	3.5	3.5	2.0	0.5	1.5	0.5	0.0	0.5	0.0	0.0	0.0
26	3.5	2.0	2.5	0.5	0.0	0.0	1.0	0.5	1.0	0.0	0.0	0.0
27	2.5	2.0	2.5	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0
28	3.5	2.5	3.0	0.0	0.0	0.0	1.5	1.0	1.5	0.0	0.0	0.0
29	3.5	3.0	3.0	0.0	0.0	0.0	1.5	1.0	1.5	0.0	0.0	0.0
30	3.5	3.0	3.5	0.0	0.0	0.0	1.5	1.0	1.5	0.0	0.0	0.0
31	4.0	3.5	3.5	---	---	---	2.0	1.0	1.5	0.0	0.0	0.0
MONTH	9.0	2.0	5.7	4.0	0.0	2.5	2.0	0.0	0.3	2.5	0.0	0.9

15081495 NORTH FORK STANEY CREEK NEAR KLAWOCK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	4.5	1.5	2.5
2	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5	4.5	1.5	3.0
3	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5	2.5	1.0	2.0
4	0.0	0.0	0.0	0.5	0.0	0.0	1.0	0.0	0.5	4.0	1.5	2.5
5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5	5.0	1.5	3.0
6	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.0	5.5	1.5	3.5
7	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	1.0	5.0	2.5	4.0
8	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.0	4.5	3.0	3.5
9	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.5	1.5	5.0	2.0	3.5
10	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0	4.0	3.0	3.5
11	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0	3.5	2.0	2.5
12	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.5	1.0	3.5	2.0	2.5
13	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5	3.5	2.5	3.0
14	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5	1.0	4.0	2.0	3.0
15	0.5	0.0	0.5	0.0	0.0	0.0	2.0	0.5	1.0	4.0	2.5	3.0
16	0.5	0.0	0.5	0.0	0.0	0.0	3.0	0.5	1.5	4.5	3.0	3.5
17	0.5	0.0	0.5	0.0	0.0	0.0	3.5	0.0	2.0	4.5	3.0	3.5
18	0.5	0.0	0.5	0.0	0.0	0.0	3.5	0.5	2.0	6.0	2.5	4.0
19	0.5	0.0	0.0	0.0	0.0	0.0	3.5	1.5	2.5	7.0	2.0	4.5
20	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.5	2.0	6.0	2.5	4.0
21	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.0	2.0	4.5	3.5	4.0
22	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.5	2.0	4.5	3.5	4.0
23	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.5	2.5	5.0	3.5	4.0
24	0.0	0.0	0.0	0.5	0.0	0.0	3.0	1.0	2.0	8.0	3.5	5.5
25	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.5	3.0	7.0	4.0	5.5
26	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.0	2.5	5.5	4.5	5.0
27	0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.5	3.0	6.0	4.5	5.0
28	0.0	0.0	0.0	0.0	0.0	0.0	5.5	1.5	3.0	6.0	4.5	5.0
29	---	---	---	0.5	0.0	0.0	5.0	1.0	2.5	5.5	4.5	5.0
30	---	---	---	0.5	0.0	0.0	5.0	1.0	2.5	6.0	4.5	5.0
31	---	---	---	1.0	0.0	0.0	---	---	---	5.5	4.5	5.0
MONTH	0.5	0.0	0.0	1.0	0.0	0.0	5.5	0.0	1.6	8.0	1.0	3.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.5	5.0	5.5	11.0	9.5	10.0	12.5	10.5	11.5	11.5	10.0	10.5
2	6.5	5.0	6.0	10.5	8.5	9.5	12.5	9.5	11.5	11.0	10.0	10.5
3	6.5	5.5	6.0	10.5	9.0	9.5	11.5	9.0	10.0	11.5	9.5	10.5
4	6.0	5.0	5.5	10.0	9.0	9.5	12.5	9.5	11.0	11.5	9.0	10.0
5	7.5	5.0	6.5	10.5	9.0	10.0	13.5	10.0	12.0	11.0	9.0	10.0
6	7.0	5.0	6.0	11.0	9.5	10.0	12.5	11.0	12.0	11.0	9.5	10.0
7	6.5	5.0	6.0	14.0	8.5	11.5	12.0	10.5	11.5	10.5	10.0	10.0
8	10.0	5.5	7.5	14.0	11.0	12.5	10.5	10.0	10.0	10.5	9.5	10.0
9	8.0	6.5	7.0	15.0	12.0	13.0	10.5	9.5	10.0	10.0	9.5	9.5
10	8.0	6.0	7.0	14.5	12.5	13.0	11.0	9.5	10.5	10.0	9.0	9.5
11	9.0	5.5	7.5	14.0	12.0	13.0	11.0	10.0	10.5	10.0	9.0	9.5
12	11.0	7.0	9.0	14.0	11.5	12.5	12.0	10.5	11.0	10.5	9.0	10.0
13	11.5	7.0	9.5	12.5	11.5	12.0	11.0	10.5	10.5	9.5	8.0	9.0
14	12.5	8.0	10.5	12.0	11.0	11.5	12.0	10.0	11.0	10.0	8.0	9.0
15	11.0	9.0	10.0	12.5	11.0	11.5	12.5	10.0	11.5	10.0	9.0	9.0
16	10.0	8.5	9.0	12.0	10.5	11.5	12.0	10.0	11.0	9.0	9.0	9.0
17	11.0	8.0	9.5	10.5	9.5	10.0	13.0	10.5	11.5	9.5	9.0	9.0
18	10.5	9.0	9.5	11.5	9.5	10.5	12.0	11.0	11.5	9.0	8.5	9.0
19	9.5	9.0	9.5	11.0	10.0	11.0	12.0	11.0	11.5	9.0	8.0	8.5
20	11.5	8.5	10.0	12.0	10.0	11.0	12.0	10.0	11.0	9.5	8.5	9.0
21	12.5	9.0	10.5	12.0	10.5	11.5	11.5	10.5	11.0	9.5	8.5	9.0
22	12.0	10.0	11.0	11.5	10.5	11.0	11.0	10.5	10.5	9.5	9.0	9.5
23	12.0	10.0	11.0	12.5	11.0	11.5	11.5	10.5	11.0	10.0	9.5	9.5
24	10.5	10.0	10.5	12.0	11.0	11.5	11.0	10.5	11.0	10.5	9.5	10.0
25	10.0	9.0	9.5	11.0	10.5	11.0	11.0	10.5	10.5	9.5	9.0	9.5
26	10.5	8.5	9.5	12.0	10.5	11.0	11.5	10.5	11.0	10.5	9.0	10.0
27	11.0	9.5	10.0	12.0	11.0	11.5	11.5	11.0	11.0	10.0	9.5	10.0
28	12.0	9.5	10.5	12.0	10.5	11.0	11.5	10.5	11.0	9.5	8.5	9.0
29	11.0	10.5	11.0	11.5	10.0	11.0	11.0	10.5	11.0	8.5	7.5	8.0
30	11.0	10.0	10.5	11.5	9.5	10.5	11.0	10.5	10.5	7.5	6.0	7.0
31	---	---	---	11.5	10.0	11.0	11.0	10.5	10.5	---	---	---
MONTH	12.5	5.0	8.7	15.0	8.5	11.1	13.5	9.0	11.0	11.5	6.0	9.4

15081497 STANEY CREEK NEAR KLAWOCK

LOCATION.--Lat 55°48'05", long 133°06'31", in SW1/4 NW1/4 sec. 14, T. 70 S., R. 80 E. (Craig D-4 quad), Hydrologic Unit 19010103, on Prince of Wales Island, in Tongass National Forest, on right bank, approximately 2.9 mi upstream from mouth, and 17 mi north of Klawock.

DRAINAGE AREA.--50.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1989 to current year. Equivalent daily discharge record collected at station No. 15081500 near Craig during water years 1964-81. Drainage area, 51.6 mi^2.

GAGE.--Water-stage recorder. Elevation of gage is 47 ft above sea level, by barometer.

REMARKS.--Records fair, except for discharges above 6,000 ft^3/s, and estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sep 21	1515	*7130	*13.63	No other peak greater than base discharge			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	487	621	e58	204	217	e85	95	374	377	89	55	304
2	238	798	e52	253	527	e125	84	250	248	79	77	764
3	201	1230	e46	296	577	e360	85	173	211	105	221	220
4	141	427	e54	238	543	e200	78	126	328	73	91	127
5	107	377	e61	239	225	150	72	99	214	100	60	91
6	112	245	e95	1270	e105	e120	74	74	162	88	47	73
7	157	595	e500	766	e84	e100	75	70	134	60	74	77
8	284	712	e380	507	e80	e90	76	75	114	47	845	327
9	513	732	e300	293	e180	e80	80	79	119	41	1020	422
10	639	390	504	540	e340	e74	133	125	127	40	219	1020
11	638	297	334	236	e300	e73	161	310	98	39	127	357
12	1780	178	372	319	e1350	e76	164	1080	84	35	110	177
13	359	163	335	243	520	e78	432	481	89	32	1290	111
14	183	790	215	194	e1350	61	412	313	95	32	262	87
15	770	473	e156	177	e1300	53	289	236	88	30	124	488
16	879	757	e130	305	543	e43	193	262	71	45	84	2170
17	1170	389	e110	186	274	e38	166	298	60	194	77	1710
18	983	264	e96	395	175	e34	155	299	59	122	64	1520
19	937	200	e84	700	165	e33	173	254	54	91	56	799
20	407	299	e82	402	158	e32	237	301	48	67	49	379
21	652	246	e83	191	e130	e30	347	308	45	71	58	3010
22	401	540	e98	120	e100	e29	298	301	42	171	537	1710
23	250	254	e335	181	e80	e28	189	266	46	120	2060	762
24	676	150	e1880	402	e67	e27	146	172	51	176	289	308
25	372	114	702	242	e54	e27	120	217	140	175	993	204
26	509	93	363	167	e49	e300	134	221	99	93	2420	186
27	550	e84	499	e110	e115	e270	127	177	70	69	886	271
28	1080	e76	422	e85	e84	209	179	230	67	73	731	348
29	1330	e68	370	e92	---	133	281	359	55	77	327	198
30	528	e62	275	e120	---	132	384	466	48	66	196	142
31	337	---	221	e175	---	133	---	381	---	55	1100	---
TOTAL	17670	11624.0	9212	9648	9692	3223	5439	8377	3443	2555	14549	18362
MEAN	570.0	387.5	297.2	311.2	346.1	104.0	181.3	270.2	114.8	82.42	469.3	612.1
MAX	1780	1230	1880	1270	1350	360	432	1080	377	194	2420	3010
MIN	107	62	46	85	49	27	72	70	42	30	47	73
AC-FT	35050	23060	18270	19140	19220	6390	10790	16620	6830	5070	28860	36420
CFSM	11.3	7.66	5.87	6.15	6.84	2.05	3.58	5.34	2.27	1.63	9.28	12.1
IN.	12.99	8.55	6.77	7.09	7.13	2.37	4.00	6.16	2.53	1.88	10.70	13.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	678.5	566.2	597.2	452.3	402.1	339.8	308.1	233.5	120.7	96.47	205.7	460.5
MAX	1123	996	1270	782	983	565	559	558	252	200	469	783
(WY)	2000	1992	1992	1992	1991	1994	1997	1999	1999	1997	2002	1994
MIN	443	201	267	240	152	104	173	79.0	26.5	22.1	26.6	166
(WY)	1997	1997	1997	1998	1994	2002	1993	1998	1993	1993	1993	1995

\# See Period of Record; partial years used in monthly summary of statistics
e Estimated

15081497 STANEY CREEK NEAR KLAWOCK—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002#	
ANNUAL TOTAL	127853.0		113794.0			
ANNUAL MEAN	350.3		311.8		371.6	
HIGHEST ANNUAL MEAN					506	1992
LOWEST ANNUAL MEAN					283	1995
HIGHEST DAILY MEAN	5200	Sep 30	3010	Sep 21	14900	Oct 26 1993
LOWEST DAILY MEAN	a12	Aug 15	b27	Mar 24	4.4	Jul 21 1993
ANNUAL SEVEN-DAY MINIMUM	13	Aug 11	29	Mar 19	6.0	Jul 15 1993
MAXIMUM PEAK FLOW			7130	Sep 21	c19800	Oct 26 1993
MAXIMUM PEAK STAGE			13.63	Sep 21	17.20	Oct 26 1993
INSTANTANEOUS LOW FLOW			d		4.0	Jul 21 1993
ANNUAL RUNOFF (AC-FT)	253600		225700		269200	
ANNUAL RUNOFF (CFSM)	6.92		6.16		7.34	
ANNUAL RUNOFF (INCHES)	93.99		83.66		99.78	
10 PERCENT EXCEEDS	793		742		887	
50 PERCENT EXCEEDS	187		179		174	
90 PERCENT EXCEEDS	46		55		39	

\# See Period of Record; partial years used in monthly statistics
a Aug. 15-17
b Mar. 24-25
c From rating curve extended above 3300 ft^3/sec
d Not determined, see lowest daily mean

15081497 STANEY CREEK NEAR KLAWOCK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: January 1990 to current year.

INSTRUMENTATION.--Electronic water temperature recorder since January 11, 1990, set for 2-hour recording interval. As of April 9, 1996, recorder set to 15-minute recording interval.

REMARKS.-- Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE.--Maximum recorded, 26.0°C, June 29, 1990, but may have been higher during period of instrument malfunction July 9 to August 23, 1990; minimum, 0.0°C on many days during winter.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE.--Maximum, 18.5°C, June 14 and July 10; minimum, 0.0°C on many days during the winter.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.5	7.5	8.0	5.0	4.0	4.5	0.0	0.0	0.0	2.5	1.5	2.0
2	9.0	8.0	8.5	4.5	4.0	4.0	0.0	0.0	0.0	2.0	2.0	2.0
3	9.5	8.5	9.0	4.5	3.5	4.5	0.0	0.0	0.0	2.0	1.5	2.0
4	8.5	7.0	8.0	4.0	3.5	4.0	0.0	0.0	0.0	2.0	1.0	1.5
5	8.0	6.5	7.5	4.0	3.0	3.5	0.0	0.0	0.0	3.0	1.5	2.5
6	9.0	8.0	8.0	3.5	3.0	3.0	0.0	0.0	0.0	3.0	2.0	2.5
7	8.0	7.5	8.0	3.5	3.0	3.5	0.0	0.0	0.0	2.5	2.5	2.5
8	8.5	7.5	8.0	4.0	3.5	3.5	0.5	0.0	0.0	2.5	2.5	2.5
9	8.0	7.5	8.0	4.0	3.5	4.0	1.0	0.0	0.5	3.0	2.5	2.5
10	8.0	7.5	7.5	5.0	4.0	4.5	0.5	0.0	0.0	3.0	1.5	2.0
11	7.5	7.0	7.0	4.5	3.5	4.0	1.0	0.0	0.5	2.0	0.0	1.5
12	7.5	7.0	7.5	4.5	3.0	4.0	1.0	0.5	0.5	1.0	0.0	0.5
13	7.0	6.5	6.5	5.0	3.5	4.0	1.0	0.5	0.5	2.0	1.0	1.5
14	7.0	6.0	6.5	4.5	4.0	4.0	2.0	0.0	1.0	2.0	1.0	1.5
15	7.0	6.0	6.5	4.5	3.5	4.0	0.0	0.0	0.0	2.5	1.5	2.0
16	6.5	6.0	6.5	4.0	3.0	3.5	0.0	0.0	0.0	2.0	1.5	1.5
17	6.5	5.5	6.0	4.0	3.0	3.5	0.0	0.0	0.0	2.0	1.5	1.5
18	7.5	6.5	7.0	4.0	3.5	4.0	0.0	0.0	0.0	2.0	2.0	2.0
19	7.0	6.0	6.5	5.0	4.0	4.5	0.0	0.0	0.0	2.0	1.5	1.5
20	6.5	6.0	6.0	5.0	4.5	5.0	0.0	0.0	0.0	2.0	1.5	1.5
21	6.5	6.0	6.0	5.0	4.5	5.0	0.0	0.0	0.0	2.0	1.0	1.5
22	6.0	5.5	5.5	5.0	4.0	4.5	0.0	0.0	0.0	2.0	1.5	2.0
23	6.0	5.0	5.5	4.0	3.0	4.0	0.0	0.0	0.0	2.0	0.0	0.0
24	5.5	4.5	5.0	3.5	2.5	3.0	1.0	0.0	0.5	0.0	0.0	0.0
25	5.0	4.0	4.5	2.5	1.0	2.0	1.5	0.5	1.0	0.0	0.0	0.0
26	4.5	3.5	4.0	2.5	0.0	1.0	1.5	0.5	1.0	0.0	0.0	0.0
27	4.0	3.0	3.5	0.0	0.0	0.0	2.0	1.5	1.5	0.0	0.0	0.0
28	4.0	3.5	4.0	0.0	0.0	0.0	2.0	1.5	1.5	0.0	0.0	0.0
29	4.0	3.5	4.0	0.0	0.0	0.0	2.0	1.5	1.5	0.0	0.0	0.0
30	4.5	3.5	4.0	0.0	0.0	0.0	2.0	1.0	1.5	0.0	0.0	0.0
31	5.0	4.0	4.5	---	---	---	2.0	1.0	1.5	0.0	0.0	0.0
MONTH	9.5	3.0	6.4	5.0	0.0	3.3	2.0	0.0	0.4	3.0	0.0	1.3

15081497 STANEY CREEK NEAR KLAWOCK—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	1.0	6.0	3.0	4.5
2	0.0	0.0	0.0	0.5	0.0	0.0	3.5	0.0	1.5	7.5	3.5	5.5
3	0.0	0.0	0.0	1.0	0.5	0.5	3.0	0.0	1.5	5.0	3.0	4.0
4	0.0	0.0	0.0	1.0	0.0	0.5	3.0	0.5	1.5	6.5	3.5	4.5
5	0.0	0.0	0.0	2.0	0.5	1.0	3.0	1.0	2.0	7.5	2.5	5.0
6	1.0	0.0	0.5	1.5	0.0	0.0	4.5	1.0	2.5	8.5	2.0	5.5
7	2.0	0.0	1.5	0.0	0.0	0.0	4.5	0.5	2.5	8.5	3.0	6.0
8	1.5	0.5	1.0	0.0	0.0	0.0	4.5	1.0	2.5	7.5	4.5	6.0
9	1.5	0.0	0.5	0.0	0.0	0.0	4.5	1.5	3.0	7.5	3.0	5.5
10	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.5	3.5	7.0	5.0	6.0
11	0.0	0.0	0.0	0.0	0.0	0.0	4.5	1.0	2.5	5.5	4.5	5.0
12	0.5	0.0	0.5	0.0	0.0	0.0	4.5	2.5	3.5	5.0	4.0	4.5
13	1.0	0.5	0.5	0.0	0.0	0.0	3.0	2.0	2.5	5.5	4.5	5.0
14	1.0	0.5	1.0	0.0	0.0	0.0	3.5	1.5	2.5	6.5	4.0	5.0
15	1.5	0.5	1.0	0.0	0.0	0.0	4.0	1.5	3.0	6.5	4.5	5.5
16	1.5	0.5	1.0	0.5	0.0	0.0	5.5	1.5	3.0	8.0	5.5	6.5
17	1.5	0.5	1.0	0.5	0.0	0.5	5.5	1.5	3.5	7.0	5.5	6.0
18	2.0	1.0	1.0	0.5	0.0	0.5	6.0	1.5	3.5	8.5	5.0	6.5
19	1.5	0.0	1.0	0.5	0.0	0.5	6.0	3.0	4.5	10.5	5.0	7.5
20	1.5	0.0	0.5	0.5	0.0	0.5	4.5	3.5	4.0	9.5	5.5	7.5
21	0.0	0.0	0.0	0.5	0.0	0.5	4.5	3.0	3.5	7.5	6.5	7.0
22	0.0	0.0	0.0	0.5	0.0	0.5	5.5	2.0	3.5	7.0	6.0	6.5
23	0.0	0.0	0.0	1.0	0.0	0.5	4.5	3.0	3.5	7.0	6.0	6.5
24	0.0	0.0	0.0	1.0	0.0	0.5	5.0	2.0	3.5	12.0	6.0	8.5
25	0.0	0.0	0.0	1.0	0.0	0.5	7.0	3.0	5.0	11.0	7.5	9.0
26	0.0	0.0	0.0	0.0	0.0	0.0	6.5	2.5	4.5	9.0	7.5	8.5
27	0.0	0.0	0.0	0.5	0.0	0.0	8.0	2.5	5.0	9.0	7.0	8.0
28	0.0	0.0	0.0	1.0	0.0	0.0	8.0	3.5	5.5	10.0	7.5	8.5
29	---	---	---	2.0	0.0	1.0	7.5	3.5	5.5	8.5	7.0	8.0
30	---	---	---	1.5	0.0	1.0	7.5	3.0	5.0	9.0	7.0	8.0
31	---	---	---	2.0	0.0	1.0	---	---	---	8.5	7.5	8.0
MONTH	2.0	0.0	0.4	2.0	0.0	0.3	8.0	0.0	3.3	12.0	2.0	6.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.0	7.0	8.0	12.0	11.0	11.5	17.0	12.0	14.5	11.5	10.0	10.5
2	9.5	7.5	8.5	12.0	10.5	11.0	15.5	11.5	13.5	11.5	10.5	11.0
3	9.5	8.0	8.5	12.0	10.0	11.5	14.0	10.5	12.0	11.5	9.5	10.5
4	9.0	8.0	8.5	11.5	10.5	11.0	15.5	11.0	13.0	11.5	9.0	10.0
5	10.5	8.0	9.0	12.0	10.5	11.0	17.0	11.5	14.0	11.0	9.0	10.0
6	10.0	7.5	9.0	12.5	10.5	11.5	15.0	12.5	13.5	12.0	9.5	10.5
7	9.5	7.5	8.5	17.0	10.5	13.5	14.0	11.5	13.0	11.0	10.0	10.5
8	13.5	8.0	10.5	16.5	13.0	14.5	12.5	11.5	12.0	11.5	10.0	10.5
9	11.0	9.0	10.0	17.5	13.5	15.5	12.0	11.0	11.5	10.5	9.5	10.0
10	11.5	8.5	9.5	18.5	13.5	15.5	13.5	11.0	12.0	11.0	10.0	10.5
11	12.0	7.5	10.0	17.5	14.0	15.5	12.5	11.0	12.0	10.5	9.5	10.0
12	16.0	9.0	12.0	16.5	13.5	15.0	14.0	11.0	12.5	10.5	9.5	10.0
13	17.0	9.5	13.0	15.0	13.0	14.0	13.5	11.5	12.0	10.0	8.5	9.0
14	18.5	10.5	14.5	13.5	12.5	13.0	13.0	10.0	11.5	10.0	8.5	9.5
15	15.0	11.5	13.0	13.5	12.0	13.0	13.5	9.5	11.5	10.5	9.5	10.0
16	13.0	11.5	12.0	13.5	12.5	13.0	13.0	9.5	11.5	10.0	9.5	9.5
17	17.0	10.5	13.5	13.5	11.5	12.5	14.5	10.5	12.5	10.0	9.5	10.0
18	14.0	11.5	12.5	13.0	11.0	12.0	14.0	11.5	12.5	10.0	9.5	9.5
19	12.5	10.5	11.5	14.5	11.5	12.5	14.0	11.0	12.5	9.5	9.0	9.5
20	17.5	10.5	13.5	13.5	11.5	12.5	13.5	11.0	12.0	9.5	8.5	9.0
21	16.0	11.0	13.5	13.5	12.0	12.5	13.5	11.5	12.5	10.0	9.0	9.5
22	14.5	12.0	13.0	14.0	11.5	12.5	13.0	11.5	12.0	10.5	10.0	10.0
23	15.0	12.0	13.5	14.5	11.5	13.0	12.5	11.0	12.0	10.5	10.0	10.0
24	13.5	12.0	12.5	14.5	11.5	13.0	12.0	9.5	10.5	10.5	9.5	10.0
25	12.5	11.0	11.5	13.5	11.5	12.5	12.0	9.5	11.0	10.0	9.0	9.5
26	12.5	10.5	11.5	15.0	11.0	12.5	12.0	11.5	12.0	10.5	9.5	10.0
27	13.0	11.0	12.0	14.0	12.0	13.0	12.5	11.5	12.0	11.0	9.5	10.0
28	15.0	11.0	12.5	13.5	11.5	12.5	12.5	11.5	12.0	10.5	9.0	9.5
29	14.0	12.5	13.0	15.5	11.0	13.0	12.0	10.5	11.0	9.0	8.0	8.5
30	12.5	11.5	12.0	14.0	11.0	12.5	11.5	9.5	10.5	8.5	7.0	8.0
31	---	---	---	14.5	11.5	13.0	12.5	11.5	12.0	---	---	---
MONTH	18.5	7.0	11.3	18.5	10.0	12.9	17.0	9.5	12.2	12.0	7.0	9.8

15081610 THREEMILE CREEK NEAR KLAWOCK

LOCATION.--Lat 55°32′06″, long 132°57′17″, in $SW^1/_4$ $SW^1/_4$ $SE^1/_4$ sec. 16, T. 73 S., R. 82 E. (Craig C-3 quad), Hydrologic Unit 19010103, on Prince of Wales Island, approximately 2.0 mi upstream from the mouth at Klawock Lake, and 5.2 mi east of the city of Klawock.

DRAINAGE AREA.--6.63 mi^2

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 295 ft above sea level, from topographic map.

REMARKS.-- Records fair except for those above 250 ft^3/s and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	91	e15	44	15	23	11	69	96	51	33	155
2	45	90	e15	52	70	32	11	51	93	45	67	154
3	48	132	e16	70	45	53	11	43	89	44	53	95
4	26	65	e17	47	61	23	11	33	103	55	36	74
5	19	53	18	77	24	15	10	27	87	72	30	60
6	31	42	19	155	18	e14	11	25	70	56	26	52
7	46	71	112	125	15	e13	11	27	59	44	34	56
8	58	69	71	87	14	e12	11	26	54	40	114	80
9	60	67	56	80	67	e11	11	25	60	38	116	108
10	66	56	81	81	44	11	18	43	65	39	66	179
11	106	46	48	62	53	10	15	68	56	42	48	114
12	166	36	62	58	91	10	22	112	51	34	70	77
13	69	55	45	43	36	10	45	106	60	45	195	62
14	36	85	30	35	113	9.9	41	77	71	44	78	55
15	134	59	25	49	113	9.4	27	64	65	36	51	77
16	118	72	21	50	60	e9.0	22	93	54	56	42	211
17	138	53	20	35	36	e8.7	22	77	47	75	38	186
18	129	43	e19	64	28	e8.4	22	71	45	54	31	167
19	112	50	e18	52	23	e8.1	22	82	47	43	27	135
20	77	77	18	39	20	e7.9	36	107	43	36	27	126
21	82	77	19	27	18	8.0	64	108	40	52	43	239
22	64	94	27	21	16	8.1	39	98	39	64	158	256
23	52	59	170	22	15	8.4	29	76	50	49	217	183
24	60	45	183	23	e14	8.9	21	68	68	52	114	113
25	48	36	90	19	13	39	19	96	86	49	165	86
26	76	28	62	16	15	42	21	99	64	37	182	82
27	57	24	81	16	25	25	24	93	54	40	159	117
28	126	22	77	15	19	16	36	125	52	61	157	93
29	96	e19	66	15	---	15	51	141	51	50	110	77
30	72	e17	58	17	---	14	73	113	50	39	110	62
31	54	---	51	17	---	13	---	103	---	34	210	---
TOTAL	2342	1733	1610	1513	1081	495.8	767	2346	1869	1476	2807	3531
MEAN	75.55	57.77	51.94	48.81	38.61	15.99	25.57	75.68	62.30	47.61	90.55	117.7
MAX	166	132	183	155	113	53	73	141	103	75	217	256
MIN	19	17	15	15	13	7.9	10	25	39	34	26	52
AC-FT	4650	3440	3190	3000	2140	983	1520	4650	3710	2930	5570	7000
CFSM	11.4	8.71	7.83	7.36	5.82	2.41	3.86	11.4	9.40	7.18	13.7	17.8
IN.	13.14	9.72	9.03	8.49	6.07	2.78	4.30	13.16	10.49	8.28	15.75	19.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	82.65	61.62	52.44	51.55	33.35	28.51	39.00	73.03	79.83	58.64	60.44	86.69
MAX	113	68.1	57.3	69.8	38.6	42.1	50.1	88.8	108	68.3	90.5	118
(WY)	2000	2000	2000	2001	2002	2001	1999	1999	1999	1999	2002	2002
MIN	59.6	57.8	48.1	36.0	26.8	16.0	25.6	56.1	62.3	47.6	37.8	57.5
(WY)	2001	2002	2001	2000	2000	2002	2002	2000	2002	2002	2001	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002#	
ANNUAL TOTAL	21545.8		21570.8			
ANNUAL MEAN	59.03		59.10		57.45	
HIGHEST ANNUAL MEAN					59.1	2002
LOWEST ANNUAL MEAN					55.8	2000
HIGHEST DAILY MEAN	240	Mar 11	256	Sep 22	482	Oct 21 1999
LOWEST DAILY MEAN	a9.9	Feb 24	7.9	Mar 20	7.3	Mar 9 2000
ANNUAL SEVEN-DAY MINIMUM	11	Aug 12	8.2	Mar 17	8.2	Mar 17 2002
MAXIMUM PEAK FLOW			373	Aug 23	b1390	Aug 21 2000
MAXIMUM PEAK STAGE			9.31	Aug 23	11.55	Aug 21 2000
INSTANTANEOUS LOW FLOW			c		6.4	Mar 10 2000
ANNUAL RUNOFF (AC-FT)	42740		42790		41620	
ANNUAL RUNOFF (CFSM)	8.90		8.91		8.66	
ANNUAL RUNOFF (INCHES)	120.89		121.03		117.72	
10 PERCENT EXCEEDS	115		114		106	
50 PERCENT EXCEEDS	51		51		51	
90 PERCENT EXCEEDS	17		15		16	

e Estimated
\# See Period of Record
a Feb. 24 and Aug. 17
b From rating curve extended above 130 ft^3/s
c Not determined, see lowest daily mean

15081614 HALFMILE CREEK ABOVE DIVERSION NEAR KLAWOCK

LOCATION.--Lat 55°33′26″, long 133°01′01″, in NW$^1/_4$ SW$^1/_4$ NW$^1/_4$ sec. 7, T. 73 S., R. 82 E. (Craig C-3 quad), Hydrologic Unit 19010103, on Prince of Wales Island, approximately 1.1 mi upstream from the mouth at Klawock Lake, and 2.9 mi east of the city of Klawock.

DRAINAGE AREA.--4.73 mi^2

PERIOD OF RECORD.--December 2000 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 400 ft above sea level, from topographic map.

REMARKS.--Records fair, except for estimated discharges and those above 180 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	92	e4.8	21	7.2	12	6.6	51	40	8.6	8.5	73
2	21	71	e5.3	32	69	25	6.1	36	27	8.7	75	73
3	26	137	e6.0	69	46	68	6.1	23	25	12	37	21
4	14	33	e6.7	31	55	21	5.8	14	47	26	13	12
5	9.7	21	e7.7	49	18	17	5.7	11	31	44	8.4	8.8
6	24	14	8.8	159	e8.0	e12	5.7	11	20	21	6.7	7.3
7	27	41	196	116	e6.8	e10	5.6	13	15	11	21	20
8	35	65	84	71	15	e9.4	5.7	15	13	8.1	150	61
9	71	80	49	59	58	e8.4	6.0	15	14	7.3	88	57
10	82	43	85	69	50	e7.3	15	44	17	6.9	24	103
11	88	26	35	36	75	e6.4	14	73	14	7.4	14	53
12	120	13	60	33	159	5.8	22	98	12	6.6	45	19
13	39	17	36	17	39	5.6	52	89	13	15	211	11
14	17	72	17	14	199	5.5	46	49	14	16	33	9.7
15	103	54	15	34	146	5.2	26	33	12	11	14	38
16	95	64	12	41	47	5.0	19	42	10	35	12	158
17	114	31	e11	21	19	5.0	20	35	9.2	53	14	91
18	96	20	e10	80	13	4.8	21	29	8.5	31	9.1	103
19	74	22	e9.9	48	11	4.6	23	30	9.3	24	7.9	71
20	41	32	e9.8	26	10	4.6	49	36	8.6	12	6.9	41
21	69	34	e9.7	13	8.8	4.5	89	35	7.8	20	13	203
22	33	62	11	11	7.8	4.5	38	40	7.3	31	143	177
23	20	23	131	12	e6.9	4.7	22	25	7.6	16	200	77
24	42	12	281	10	e6.7	4.9	14	19	12	23	33	25
25	23	8.7	81	7.9	7.9	34	16	23	47	20	125	15
26	57	8.2	40	e7.1	9.3	50	20	23	26	11	167	17
27	35	e7.3	64	e6.7	25	26	24	20	17	14	107	51
28	146	e6.5	59	e6.5	12	15	41	31	12	36	89	31
29	111	e5.6	45	e6.5	---	10	51	69	9.2	27	32	19
30	46	e5.2	34	e7.0	---	9.0	63	70	8.1	15	35	12
31	32	---	27	e10	---	7.5	---	48	---	10	155	---
TOTAL	1746.7	1120.5	1451.7	1123.7	1135.4	412.7	738.3	1150	513.6	587.6	1897.5	1657.8
MEAN	56.35	37.35	46.83	36.25	40.55	13.31	24.61	37.10	17.12	18.95	61.21	55.26
MAX	146	137	281	159	199	68	89	98	47	53	211	203
MIN	9.7	5.2	4.8	6.5	6.7	4.5	5.6	11	7.3	6.6	6.7	7.3
MED	41	28	27	26	16	7.5	20	33	13	15	33	39
AC-FT	3460	2220	2880	2230	2250	819	1460	2280	1020	1170	3760	3290
CFSM	11.9	7.90	9.90	7.66	8.57	2.81	5.20	7.84	3.62	4.01	12.9	11.7
IN.	13.74	8.81	11.42	8.84	8.93	3.25	5.81	9.04	4.04	4.62	14.92	13.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	56.35	37.35	46.83	47.82	33.98	26.53	30.55	48.52	43.21	25.67	45.75	58.72
MAX	56.3	37.3	46.8	59.4	40.6	39.7	36.5	59.9	69.3	32.4	61.2	62.2
(WY)	2002	2002	2002	2001	2002	2001	2001	2001	2001	2001	2002	2001
MIN	56.3	37.3	46.8	36.2	27.4	13.3	24.6	37.1	17.1	19.0	30.3	55.3
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2002	2002	2001	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002#	
ANNUAL TOTAL	16999.6		13535.5			
ANNUAL MEAN	46.57		37.08		37.08	
HIGHEST ANNUAL MEAN					37.1	2002
LOWEST ANNUAL MEAN					37.1	2002
HIGHEST DAILY MEAN	288	Mar 11	281	Dec 24	288	Mar 11 2001
LOWEST DAILY MEAN	4.8	Dec 1	a4.5	Mar 21	4.5	Mar 21 2002
ANNUAL SEVEN-DAY MINIMUM	5.4	Feb 19	4.7	Mar 18	4.7	Mar 18 2002
MAXIMUM PEAK FLOW			529	Aug 23	597	Sep 29 2001
MAXIMUM PEAK STAGE			9.90	Aug 23	10.07	Sep 29 2001
INSTANTANEOUS LOW FLOW			b4.5	Mar 19	4.5	Mar 19 2002
ANNUAL RUNOFF (AC-FT)	33720		26850		26870	
ANNUAL RUNOFF (CFSM)	9.85		7.84		7.84	
ANNUAL RUNOFF (INCHES)	133.70		106.45		106.52	
10 PERCENT EXCEEDS	100		88		88	
50 PERCENT EXCEEDS	35		21		21	
90 PERCENT EXCEEDS	7.4		6.8		6.8	

\# See Period of Record, partial years used in monthly statistics
a Mar. 21-22
b Mar. 19-22
e Estimated

15081995 REYNOLDS CREEK BELOW LAKE MELLEN NEAR HYDABURG

LOCATION.--Lat 55°13′05″, long 132°34′50″, in $SW^1/_4$ $SE^1/_4$ sec. 3, T. 77 S., R. 84 E.(Craig A-2 quad), Hydrologic Unit 19010103, on Prince of Wales Island, in Tongass National Forest, 0.1 mi below Lake Mellen, approximately 1 mi upstream from mouth at Copper Harbor in Hetta Inlet, and 10 mi east of Hydaburg.

DRAINAGE AREA.--5.20 mi^2.

PERIOD OF RECORD.--July 1982 to September 1985, October 1997 to current year

GAGE.--Water-stage recorder. Elevation of gage is 860 ft above sea level, from topographic map. Prior to January 1, 1984, at datum 2.00 ft higher.

REMARKS.--Records good, except for estimated daily discharges which are poor. GOES satellite telemetry at station. Streamflow affected by storage in lakes, which cover 30 percent of the basin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	107	39	76	e30	e33	e19	e39	e125	88	27	145
2	99	108	36	74	e64	e32	e18	e45	e110	79	28	145
3	90	135	38	75	e58	e38	e17	e49	e122	71	31	123
4	81	111	40	71	e61	e39	e16	e47	e115	66	29	107
5	73	100	37	73	e55	e36	e18	e43	e105	65	26	98
6	73	91	36	128	e50	e35	21	e41	e96	60	24	89
7	85	93	54	148	e43	e34	20	e40	e87	55	27	87
8	103	93	87	123	e37	e31	20	e39	e78	49	55	101
9	95	94	68	112	e31	e29	20	e38	e71	46	88	109
10	97	87	65	131	e49	e27	21	e37	e67	43	66	135
11	96	84	58	112	e90	e24	22	e38	e66	39	51	116
12	127	74	64	107	e120	e26	23	e58	e65	37	46	101
13	101	83	69	94	e88	e25	26	e78	e64	36	85	90
14	86	102	57	84	e100	e23	31	e87	e63	33	72	82
15	110	92	48	78	e130	e22	31	e83	e64	32	55	96
16	117	99	42	79	e86	e21	27	e80	e63	40	46	144
17	108	84	40	71	e70	e20	e26	e75	e60	45	41	167
18	123	76	38	72	e58	e19	e25	e72	e55	40	37	171
19	116	76	36	73	e54	e18	26	e70	54	36	34	143
20	105	89	33	70	e49	e17	27	e72	51	33	32	127
21	111	94	35	e57	e43	e17	30	e77	48	32	32	160
22	106	106	34	e51	e39	e16	e28	e81	46	39	56	217
23	95	89	63	e48	e35	e15	e26	e87	47	38	132	187
24	94	78	181	e45	e30	e14	e24	e84	60	34	102	142
25	87	70	123	e41	e26	e19	e23	e80	87	32	115	124
26	99	63	97	e38	e30	e34	e23	e75	80	30	192	113
27	91	57	98	e36	e36	e26	e24	e87	72	29	194	107
28	110	52	96	e32	e35	e22	e25	e110	68	28	187	103
29	127	47	92	e29	---	e20	e26	e130	64	29	146	94
30	115	43	84	e30	---	e21	e33	e150	72	30	128	82
31	103	---	79	e31	---	e20	---	e135	---	28	171	---
TOTAL	3140	2577	1967	2289	1597	773	716	2227	2225	1342	2355	3705
MEAN	101.3	85.90	63.45	73.84	57.04	24.94	23.87	71.84	74.17	43.29	75.97	123.5
MAX	127	135	181	148	130	39	33	150	125	88	194	217
MIN	73	43	33	29	26	14	16	37	46	28	24	82
AC-FT	6230	5110	3900	4540	3170	1530	1420	4420	4410	2660	4670	7350
CFSM	19.5	16.5	12.2	14.2	11.0	4.80	4.59	13.8	14.3	8.33	14.6	23.8
IN.	22.46	18.44	14.07	16.38	11.42	5.53	5.12	15.93	15.92	9.60	16.85	26.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	96.47	76.71	69.58	88.33	72.12	56.97	61.06	80.12	66.87	46.14	52.26	70.77
MAX	172	142	131	129	107	97.9	90.9	128	103	63.5	78.7	124
(WY)	2000	2000	1998	1985	1984	1984	2000	1999	1999	2001	1983	2002
MIN	71.6	44.1	20.7	61.4	47.7	24.9	23.9	40.4	22.9	20.2	19.3	32.2
(WY)	1986	1986	1984	1998	1999	2002	2002	1998	1998	1998	1982	1982

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1982 - 2002#	
ANNUAL TOTAL	27110		24913			
ANNUAL MEAN	74.27		68.25		71.12	
HIGHEST ANNUAL MEAN					88.9	2000
LOWEST ANNUAL MEAN					59.5	1983
HIGHEST DAILY MEAN	199	Sep 3	217	Sep 22	610	Oct 23 1999
LOWEST DAILY MEAN	22	Aug 18	14	Mar 24	9.0	Jul 9 1998
ANNUAL SEVEN-DAY MINIMUM	25	Aug 12	17	Mar 18	9.8	Jul 4 1998
MAXIMUM PEAK FLOW			237	Dec 24	806	Oct 23 1999
MAXIMUM PEAK STAGE			6.77	Dec 24	8.71	Oct 23 1999
INSTANTANEOUS LOW FLOW			a		b8.7	Jul 9 1998
ANNUAL RUNOFF (AC-FT)	53770		49410		51520	
ANNUAL RUNOFF (CFSM)	14.3		13.1		13.7	
ANNUAL RUNOFF (INCHES)	193.94		178.22		185.83	
10 PERCENT EXCEEDS	113		122		121	
50 PERCENT EXCEEDS	74		64		63	
90 PERCENT EXCEEDS	32		25		30	

\# See Period of Record; partial years used in monthly summary statistics and break in record
a Not determined,see lowest daily mean
b Jul. 9 and 10, 1998
e Estimated

15085100 OLD TOM CREEK NEAR KASAAN

LOCATION.--Lat 55°23′44″, long 132°24′25″, in NW$^1/_4$ SW$^1/_4$ sec. 6, T. 75 S., R. 86 E. (Craig B-2 quad) Hydrologic Unit 19010103, on Prince of Wales Island, in Tongass National Forest, on left bank 1,000 ft upstream from mouth at Skowl Arm of Kasaan Bay, 0.4 mi downstream from unnamed tributary, and 10 mi south of Kasaan.

DRAINAGE AREA.--5.90 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1949 to current year.

REVISED RECORDS.--WDR AK-85-1: 1950-1983 (P), 1984.

GAGE.--Water-stage recorder. Elevation of gage is 10 ft above sea level, from topographic map.

REMARKS.--Records fair except estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct 15	1515	481	4.24	Dec 24	0415	784	5.16
Oct 28	1530	731	5.01	Jan 6	0015	557	4.49
Nov 3	0615	*928	*5.54	Sep 9	1515	463	4.18

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	114	e10	40	9.7	9.4	15	51	53	16	6.5	36
2	32	106	e16	45	76	11	12	33	39	13	17	58
3	22	396	e28	55	66	19	11	24	36	11	22	35
4	17	95	e20	36	161	18	9.8	20	40	9.6	13	26
5	13	69	18	145	43	13	10	17	31	8.7	9.1	20
6	12	54	15	351	24	e11	14	15	28	7.6	7.0	17
7	122	134	74	213	16	e10	13	14	25	6.7	7.2	21
8	193	92	78	67	13	e9.0	12	14	21	6.0	17	29
9	54	70	37	85	130	e8.3	11	16	19	5.5	29	164
10	39	64	41	106	102	e8.0	14	22	18	5.3	16	78
11	51	50	33	51	59	e8.5	16	30	16	5.8	12	44
12	113	37	32	54	99	e9.5	18	53	15	5.0	10	29
13	39	131	53	41	58	e7.0	46	43	13	8.4	21	23
14	23	157	30	32	69	e5.5	54	32	14	8.9	14	20
15	163	107	21	27	108	e5.1	38	33	14	12	11	40
16	91	112	17	29	56	e4.9	27	88	13	26	8.2	134
17	55	59	15	24	34	e4.7	23	58	13	27	7.2	84
18	55	43	13	28	25	e4.5	22	44	12	17	6.2	95
19	51	90	12	32	24	e4.3	26	41	11	14	5.3	51
20	33	142	e10	29	21	e4.1	31	44	10	13	4.9	33
21	28	129	11	22	16	e3.9	35	47	9.1	12	4.7	87
22	27	85	16	16	14	e3.8	30	49	8.5	17	22	149
23	20	46	288	19	e12	4.2	22	48	10	14	82	104
24	22	34	518	21	e11	4.2	19	37	31	17	39	43
25	20	26	126	16	e9.5	42	17	39	42	20	74	28
26	157	18	61	e15	9.0	55	19	41	29	13	116	22
27	73	14	78	e13	10	35	21	42	20	9.8	63	20
28	251	e10	72	e11	9.9	25	29	130	18	8.2	53	20
29	159	e8.0	56	e10	---	20	41	139	16	8.2	33	16
30	194	e6.8	41	9.1	---	20	54	97	16	8.5	29	13
31	90	---	36	10	---	18	---	68	---	7.4	59	---
TOTAL	2282	2498.8	1876	1652.1	1285.1	405.9	709.8	1429	640.6	361.6	818.3	1539
MEAN	73.61	83.29	60.52	53.29	45.90	13.09	23.66	46.10	21.35	11.66	26.40	51.30
MAX	251	396	518	351	161	55	54	139	53	27	116	164
MIN	12	6.8	10	9.1	9.0	3.8	9.8	14	8.5	5.0	4.7	13
AC-FT	4530	4960	3720	3280	2550	805	1410	2830	1270	717	1620	3050
CFSM	12.5	14.1	10.3	9.03	7.78	2.22	4.01	7.81	3.62	1.98	4.47	8.69
IN.	14.39	15.76	11.83	10.42	8.10	2.56	4.48	9.01	4.04	2.28	5.16	9.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	70.99	66.38	57.58	48.51	45.39	38.59	48.18	43.19	26.05	13.26	15.32	32.11
MAX	163	166	136	128	117	86.3	122	99.1	56.1	31.0	50.9	93.6
(WY)	1978	2000	1992	1992	1998	1984	1980	1999	1950	1991	2001	2001
MIN	28.4	17.1	8.29	3.00	5.00	10.1	19.1	15.0	5.45	2.66	1.81	2.69
(WY)	1952	1966	1984	1950	1950	1956	1967	1996	1958	1958	1993	1965

\# See Period of Record; partial years used in monthly summary statistics
e Estimated

15085100 OLD TOM CREEK NEAR KASAAN—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002#	
ANNUAL TOTAL	21761.7		15498.2			
ANNUAL MEAN	59.62		42.46		42.08	
HIGHEST ANNUAL MEAN					63.1	2000
LOWEST ANNUAL MEAN					25.2	1951
HIGHEST DAILY MEAN	518	Dec 24	518	Dec 24	858	Oct 23 1990
LOWEST DAILY MEAN	1.2	Aug 16	3.8	Mar 22	0.28	Nov 14 1965
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 11	4.1	Mar 18	0.55	Nov 13 1965
MAXIMUM PEAK FLOW			928	Nov 3	a1490	Apr 16 1952
MAXIMUM PEAK STAGE			5.54	Nov 3	6.96	Apr 16 1952
INSTANTANEOUS LOW FLOW			b		0.16	Nov 15 1965
ANNUAL RUNOFF (AC-FT)	43160		30740		30480	
ANNUAL RUNOFF (CFSM)	10.1		7.20		7.13	
ANNUAL RUNOFF (INCHES)	137.21		97.72		96.90	
10 PERCENT EXCEEDS	150		100		94	
50 PERCENT EXCEEDS	32		24		24	
90 PERCENT EXCEEDS	6.3		8.5		6.5	

\# See Period of Record; partial years used in monthly summary statistics

a From rating curve extended above 330 ft^3/s

b Undetermined, see lowest daily mean.

15085l00 OLD TOM CREEK NEAR KASAAN—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1959, and 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1964, April 1965 to February 1975, June 1975 to April 1978, and November 1978 to current year.

INSTRUMENTATION.--Electronic water-temperature recorder set for 15-minute recording interval since April 11,1996.

REMARKS.--Records represent water-temperature at the sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross section on April 1. No variation was found within the cross section. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 18.5°C, July 3, 1998; minimum, 0.0°C, on many days during most winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 13.5°C, July 23-24, August 21, 24; minimum, 0.0°C, on several days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC- ATION, CROSS SECTION (FT FM R BK) (72103)	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)
APR							
01...	1023	28.5	3.5	1.86	14	1.0	3.0
01...	1024	28.5	8.5	1.86	14	1.0	3.0
01...	1025	28.5	13.5	1.86	14	1.0	3.0
01...	1026	28.5	18.5	1.86	14	1.0	3.0
01...	1027	28.5	23.5	1.86	14	1.0	3.0

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

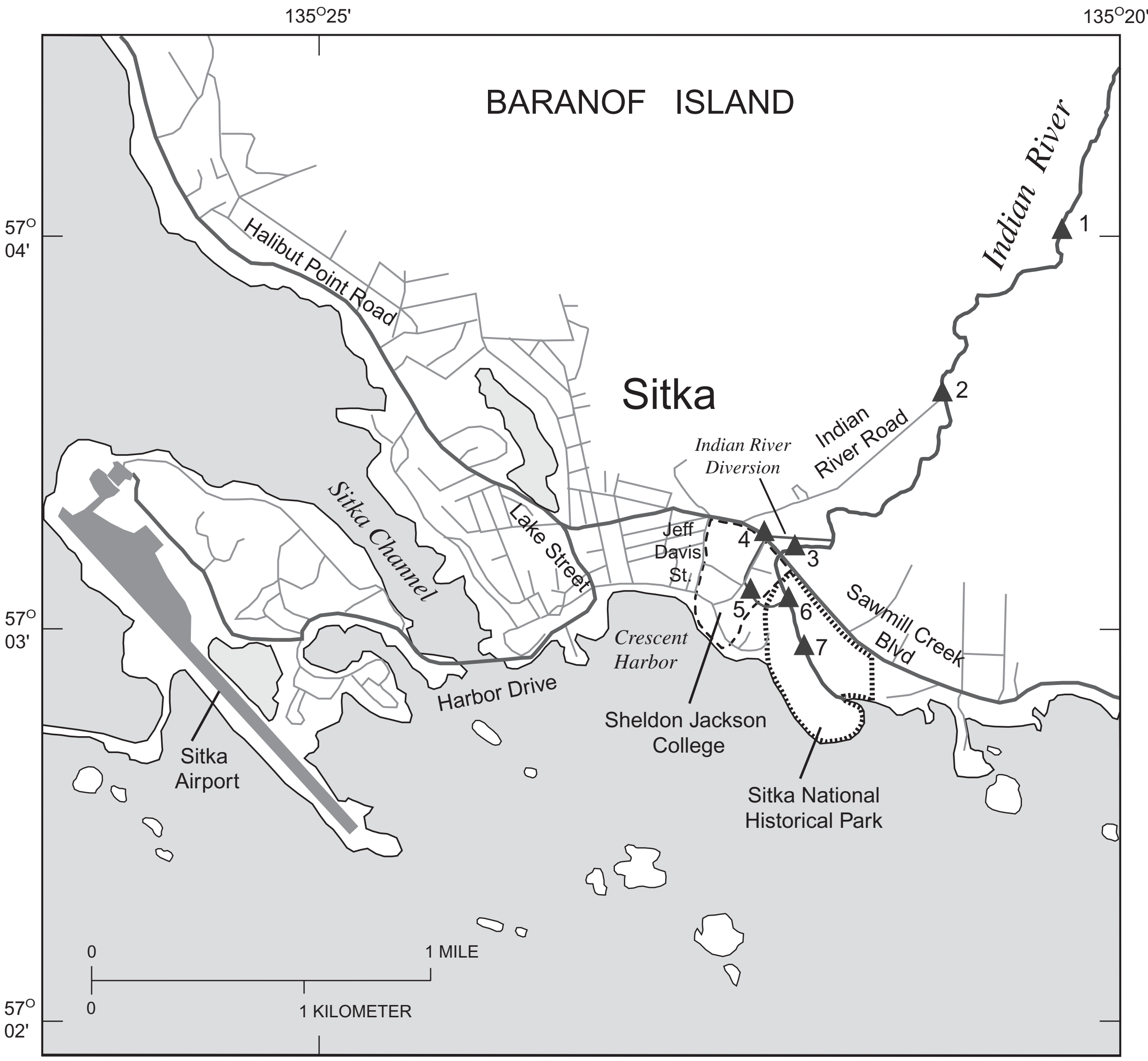
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.5	9.0	9.0	5.5	4.5	5.0	0.5	0.5	0.5	3.0	2.5	2.5
2	9.5	8.5	9.0	5.5	4.5	5.0	0.5	0.5	0.5	3.0	2.5	3.0
3	9.5	9.0	9.0	5.5	4.5	5.0	0.5	0.5	0.5	3.0	2.5	3.0
4	9.0	8.0	8.5	5.0	4.5	4.5	0.5	0.5	0.5	2.5	2.0	2.5
5	9.0	7.5	8.5	4.5	3.0	4.0	0.5	0.5	0.5	3.5	2.5	3.0
6	9.0	8.5	8.5	4.0	3.0	3.5	0.5	0.5	0.5	3.5	3.0	3.5
7	8.5	7.5	8.0	4.0	3.0	3.5	0.5	0.0	0.5	3.5	3.0	3.5
8	8.5	8.0	8.5	4.5	4.0	4.0	2.0	0.5	1.0	3.5	3.0	3.5
9	9.0	8.0	8.5	4.5	4.0	4.0	2.0	1.5	2.0	4.0	3.0	3.5
10	8.5	7.5	8.0	4.5	4.0	4.5	2.5	2.0	2.0	3.5	3.0	3.5
11	8.0	7.0	7.5	4.5	4.0	4.5	2.5	2.5	2.5	3.5	1.0	3.0
12	8.0	7.5	7.5	4.5	4.0	4.5	2.5	2.0	2.5	2.5	1.0	2.0
13	7.5	7.0	7.5	4.5	4.5	4.5	2.5	2.0	2.0	3.0	2.5	2.5
14	7.0	6.0	6.5	5.0	4.5	4.5	2.0	1.5	2.0	3.0	2.5	2.5
15	7.5	6.5	7.0	4.5	4.5	4.5	1.5	1.0	1.5	3.0	2.5	2.5
16	7.5	6.5	7.0	4.5	3.5	4.0	1.5	0.5	1.0	2.5	2.5	2.5
17	7.5	6.5	7.0	4.5	3.5	4.0	1.0	0.5	0.5	2.5	2.5	2.5
18	8.0	7.0	7.5	4.0	3.5	4.0	1.0	0.5	0.5	3.0	2.5	2.5
19	7.0	6.5	7.0	5.0	4.0	4.5	0.5	0.5	0.5	3.0	2.5	2.5
20	7.0	6.0	6.5	5.0	4.5	5.0	0.5	0.5	0.5	2.5	2.5	2.5
21	7.0	6.0	6.5	5.0	5.0	5.0	1.0	0.5	0.5	2.5	2.0	2.5
22	6.5	6.0	6.0	5.0	4.5	5.0	1.0	1.0	1.0	2.0	1.0	1.5
23	6.0	5.5	6.0	4.5	4.0	4.5	2.0	0.5	1.0	1.5	0.5	1.0
24	6.0	5.0	5.5	4.5	3.5	4.0	2.5	1.5	2.0	2.0	1.0	1.5
25	5.5	4.5	5.0	3.5	2.5	3.0	3.0	2.5	2.5	1.5	0.5	1.0
26	5.0	4.0	5.0	2.5	0.5	1.5	2.5	2.5	2.5	0.5	0.5	0.5
27	5.0	5.0	5.0	0.5	0.5	0.5	3.0	2.5	2.5	0.5	0.5	0.5
28	5.0	4.0	4.5	0.5	0.5	0.5	3.0	2.5	3.0	0.5	0.5	0.5
29	5.5	5.0	5.0	0.5	0.5	0.5	3.0	2.5	2.5	0.5	0.5	0.5
30	5.5	4.5	5.0	0.5	0.5	0.5	3.0	2.5	2.5	1.0	0.5	1.0
31	6.0	5.5	5.5	---	---	---	3.0	2.0	2.5	1.5	0.5	1.0
MONTH	9.5	4.0	7.0	5.5	0.5	3.7	3.0	0.0	1.4	4.0	0.5	2.2

15085100 OLD TOM CREEK NEAR KASAAN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	1.0	1.0	1.5	1.5	1.5	2.5	1.0	1.5	5.5	3.0	4.0
2	1.0	0.5	0.5	2.0	1.5	2.0	3.0	1.0	1.5	5.0	3.0	4.0
3	2.0	1.0	1.5	2.0	1.5	2.0	3.0	0.5	1.5	4.0	3.0	3.5
4	2.5	1.0	2.0	1.5	1.5	1.5	2.5	1.0	1.5	4.5	3.5	4.0
5	2.0	2.0	2.0	1.5	1.0	1.0	2.0	1.0	1.5	5.5	2.5	3.5
6	2.0	1.5	1.5	1.0	0.5	1.0	3.0	1.0	2.0	5.5	2.0	3.5
7	1.5	1.0	1.0	0.5	0.5	0.5	3.0	1.5	2.0	5.0	2.5	3.5
8	1.5	0.5	1.0	0.5	0.5	0.5	3.0	1.5	2.0	4.5	3.5	4.0
9	2.0	1.0	1.5	0.5	0.0	0.5	3.5	1.5	2.5	5.5	3.0	4.0
10	2.0	2.0	2.0	0.5	0.5	0.5	3.5	2.0	3.0	5.0	4.0	4.5
11	2.0	2.0	2.0	0.5	0.5	0.5	3.0	1.5	2.5	5.0	4.0	4.5
12	2.0	2.0	2.0	0.5	0.5	0.5	3.5	2.0	2.5	4.5	4.0	4.5
13	2.0	2.0	2.0	0.5	0.0	0.5	2.5	2.0	2.0	5.0	4.0	4.5
14	2.0	2.0	2.0	0.5	0.5	0.5	3.0	2.0	2.5	5.0	3.5	4.0
15	2.5	2.0	2.0	0.5	0.5	0.5	3.5	2.0	2.5	5.0	4.0	4.5
16	2.5	2.0	2.0	0.5	0.5	0.5	4.0	2.0	3.0	5.5	4.5	5.0
17	2.0	2.0	2.0	0.5	0.5	0.5	4.5	1.5	2.5	5.5	4.5	5.0
18	2.0	2.0	2.0	0.5	0.5	0.5	4.0	2.0	3.0	6.5	4.5	5.5
19	2.0	2.0	2.0	0.5	0.5	0.5	4.5	2.5	3.5	7.0	4.5	5.5
20	2.0	1.5	1.5	0.5	0.5	0.5	4.5	2.5	3.0	6.5	5.0	5.5
21	1.5	1.0	1.5	0.5	0.5	0.5	4.5	3.0	3.5	5.5	5.0	5.5
22	1.5	1.0	1.0	0.5	0.5	0.5	4.5	2.0	3.0	5.5	5.0	5.5
23	1.0	0.5	1.0	1.0	0.5	0.5	5.0	2.5	3.5	5.5	5.0	5.5
24	1.0	0.5	0.5	1.0	0.5	1.0	4.0	2.5	3.5	7.0	5.0	5.5
25	1.0	0.5	0.5	1.0	0.0	0.5	6.0	3.0	4.0	7.0	5.5	6.5
26	1.0	0.5	1.0	0.5	0.0	0.5	5.0	2.5	3.5	6.5	6.0	6.5
27	1.0	1.0	1.0	1.5	0.5	1.0	6.0	2.5	4.0	6.5	5.5	6.0
28	1.5	1.0	1.5	2.0	1.0	1.5	6.0	2.5	4.0	7.0	6.0	6.5
29	---	---	---	2.0	1.5	1.5	6.0	3.0	4.0	7.0	6.5	6.5
30	---	---	---	1.5	1.5	1.5	6.0	3.0	4.0	7.0	6.5	7.0
31	---	---	---	1.5	1.5	1.5	---	---	---	7.0	7.0	7.0
MONTH	2.5	0.5	1.5	2.0	0.0	0.9	6.0	0.5	2.8	7.0	2.0	5.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.0	7.0	7.0	11.0	10.5	10.5	12.5	12.0	12.0	13.0	12.0	12.5
2	8.0	7.0	7.5	11.0	10.5	10.5	12.5	12.0	12.0	12.5	11.5	12.0
3	8.0	7.5	7.5	11.0	10.0	10.5	12.0	11.0	11.5	12.5	11.5	12.0
4	8.0	7.5	7.5	10.5	10.0	10.5	13.0	11.5	12.0	12.0	11.0	11.5
5	8.0	7.5	7.5	11.0	10.5	10.5	13.0	11.5	12.0	12.0	10.5	11.5
6	8.0	7.0	7.5	11.0	10.5	11.0	12.5	12.0	12.0	11.5	10.5	11.0
7	7.5	7.5	7.5	11.5	10.0	11.0	12.5	12.0	12.0	11.5	11.0	11.0
8	8.5	7.0	7.5	12.0	11.0	11.5	12.0	12.0	12.0	11.5	11.0	11.0
9	9.0	8.0	8.5	12.5	11.5	12.0	12.0	11.5	12.0	11.0	10.0	10.5
10	9.0	8.5	9.0	12.5	12.0	12.5	12.5	12.0	12.0	12.0	11.0	11.5
11	9.5	8.0	8.5	12.5	12.0	12.0	12.0	12.0	12.0	11.5	10.5	11.0
12	10.0	8.5	9.5	12.5	11.5	12.0	13.0	12.0	12.5	11.5	10.5	11.0
13	11.0	9.5	10.0	12.5	11.5	12.0	12.5	12.5	12.5	11.0	9.5	10.0
14	12.0	10.5	11.0	11.5	11.0	11.0	12.5	12.0	12.0	10.5	9.5	10.0
15	12.0	11.5	12.0	11.0	11.0	11.0	12.5	11.5	12.0	10.5	10.0	10.5
16	12.0	11.5	12.0	11.0	11.0	11.0	12.0	11.0	11.5	10.5	9.5	10.0
17	12.0	11.5	11.5	11.0	11.0	11.0	13.0	12.0	12.0	11.0	10.5	11.0
18	12.5	11.5	12.0	12.0	11.0	11.5	13.0	12.0	12.5	10.5	9.5	10.0
19	12.0	11.5	11.5	12.0	11.5	11.5	12.5	11.5	12.0	10.5	9.5	10.0
20	11.5	11.0	11.5	12.5	11.5	12.0	13.0	11.5	12.0	10.0	9.5	10.0
21	12.0	10.5	11.0	12.0	12.0	12.0	13.5	12.0	12.5	10.5	9.5	10.0
22	11.5	11.5	11.5	12.5	12.0	12.0	12.5	12.5	12.5	10.5	10.5	10.5
23	12.0	11.0	11.5	13.5	12.0	12.5	13.0	12.5	12.5	11.0	10.5	11.0
24	11.5	11.0	11.0	13.5	13.0	13.0	13.5	13.0	13.0	11.0	10.5	10.5
25	11.0	10.5	10.5	13.0	12.5	12.5	13.0	12.5	12.5	11.0	10.0	10.5
26	10.5	10.5	10.5	13.0	12.0	12.5	13.0	12.0	12.5	11.0	10.5	10.5
27	11.0	10.5	11.0	13.0	12.0	12.5	13.0	12.5	13.0	11.0	10.5	10.5
28	11.5	10.5	11.0	12.5	12.0	12.0	13.0	12.5	13.0	10.5	9.5	10.0
29	11.5	11.0	11.0	12.0	11.5	11.5	13.0	12.5	12.5	9.5	9.0	9.5
30	11.0	10.5	11.0	12.0	11.0	11.5	12.5	12.5	12.5	9.0	7.5	8.5
31	---	---	---	12.0	11.5	12.0	12.5	12.0	12.5	---	---	---
MONTH	12.5	7.0	9.9	13.5	10.0	11.6	13.5	11.0	12.2	13.0	7.5	10.7



EXPLANATION

▲1 Discharge site and map number

Map No.	Station No.	Station Name	Map No.	Station No.	Station Name
* 1	15087690	Indian River near Sitka	5	15087735	Indian River Diversion Return Flow from Sheldon Jackson College at Sitka
2	15087695	Indian River above CBS pumphouse near Sitka			
* 3	15087700	Indian River at Sitka	6	15087740	Indian River Diversion Return Flow at Mouth at Sitka
4	15087730	Indian River Diversion to Sheldon Jackson College at Sawmill Cr Rd at Sitka	7	15087750	Indian River at Mouth at Sitka

* Daily discharge site

Locations of gaging stations in the Sitka area.

15087690 INDIAN RIVER NEAR SITKA

LOCATION.--Lat 57°04′01″, long 135°17′42″, in SW$^{1}/_{4}$ SE$^{1}/_{4}$ sec. 30, T. 55 S., R. 64 E. (Sitka A-4 quad), Hydrologic Unit 19010203, in Tongass National Forest, on Baranof Island, on right bank 2 mi upstream from mouth, and 1 mi northeast of Sitka.

DRAINAGE AREA.--10.1 mi^2

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1980 to September 1993. October 1998 to current year.

REVISED RECORD.--WDR-82-1: 1980-81.
GAGE.--Water-stage recorder. Elevation of gage is 125 ft above sea level, from topographic map. Prior to October 1998, at site 200 ft upstream and at different datum

REMARKS.-- No estimated daily discharges. Records fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of November 19, 1993, reached a stage of 14.04 ft, site and datum then in use, from recorder, discharge, 6,460 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1200 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 17	1630	2200	12.17	Aug 21	0715	1780	11.81
Aug 12	1800	*4840	*14.23				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	102	39	84	36	48	16	92	124	58	83	152
2	222	128	38	80	35	196	16	77	123	55	75	131
3	154	126	38	88	33	131	16	65	116	51	67	94
4	144	90	37	75	36	68	16	57	149	57	61	75
5	121	77	37	68	33	53	16	53	144	72	56	64
6	132	67	36	125	28	47	15	51	113	57	52	56
7	134	64	59	132	25	44	15	51	122	52	164	80
8	89	93	58	140	24	41	15	49	111	51	246	62
9	116	134	56	101	28	39	16	51	127	49	184	57
10	230	98	63	95	65	38	16	78	160	55	228	63
11	182	79	52	78	170	36	16	99	120	55	138	91
12	350	66	72	71	241	33	17	99	101	47	978	88
13	179	60	55	67	81	31	19	117	105	51	407	60
14	134	70	47	64	264	28	20	100	123	95	159	49
15	154	81	43	89	290	26	20	87	118	60	117	47
16	168	93	40	104	163	24	20	111	98	56	97	51
17	545	81	39	73	98	24	20	118	93	62	83	75
18	624	65	37	147	81	22	22	105	91	58	73	105
19	406	61	35	153	72	21	26	129	82	51	65	140
20	186	72	33	92	64	20	78	172	77	46	61	117
21	159	74	31	75	59	19	67	175	72	54	559	156
22	134	139	31	65	53	19	44	151	72	65	196	108
23	121	94	52	61	47	19	38	139	83	60	261	93
24	133	70	193	55	44	19	33	122	83	85	111	83
25	103	60	123	49	42	19	33	136	80	101	94	78
26	86	53	115	44	43	21	35	150	68	83	89	76
27	78	48	102	40	50	22	37	136	62	141	103	161
28	99	44	98	40	42	20	42	171	64	238	185	125
29	120	41	110	42	---	19	53	153	63	199	121	111
30	87	40	95	43	---	19	74	140	60	119	111	79
31	73	---	97	41	---	18	---	122	---	95	155	---
TOTAL	5583	2370	1961	2481	2247	1184	871	3356	3004	2378	5379	2727
MEAN	180.1	79.00	63.26	80.03	80.25	38.19	29.03	108.3	100.1	76.71	173.5	90.90
MAX	624	139	193	153	290	196	78	175	160	238	978	161
MIN	73	40	31	40	24	18	15	49	60	46	52	47
AC-FT	11070	4700	3890	4920	4460	2350	1730	6660	5960	4720	10670	5410
CFSM	17.8	7.82	6.26	7.92	7.95	3.78	2.87	10.7	9.91	7.60	17.2	9.00
IN.	20.56	8.73	7.22	9.14	8.28	4.36	3.21	12.36	11.06	8.76	19.81	10.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	189.3	101.8	101.2	99.84	81.49	62.66	67.06	108.1	91.25	64.82	91.39	169.5
MAX	293	218	207	184	154	122	111	167	166	111	238	295
(WY)	1988	1990	1990	1984	1993	1986	1983	1983	1985	1985	1983	1991
MIN	104	37.0	21.7	46.3	24.8	19.9	29.0	53.3	28.8	20.6	30.0	52.8
(WY)	1985	1999	1984	1988	1999	1989	2002	1981	1993	1993	1989	1986

See Period of Record; partial years used in monthly summary statistics and break in record

15087690 INDIAN RIVER NEAR SITKA—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002#	
ANNUAL TOTAL	30850		33541			
ANNUAL MEAN	84.52		91.89		102.7	
HIGHEST ANNUAL MEAN					123	1987
LOWEST ANNUAL MEAN					82.7	2001
HIGHEST DAILY MEAN	624	Oct 18	978	Aug 12	2000	Oct 12 1982
LOWEST DAILY MEAN	12	Aug 23	a15	Apr 6	8.6	Jan 18 1989
ANNUAL SEVEN-DAY MINIMUM	17	Aug 20	16	Apr 2	10	Jan 13 1989
MAXIMUM PEAK FLOW			b4840	Aug 12	c5710	Sep 4 1990
MAXIMUM PEAK STAGE			14.23	Aug 12	d13.51	Sep 4 1990
INSTANTANEOUS LOW FLOW			f15	Apr 4	8.2	Jan 19 1989
ANNUAL RUNOFF (AC-FT)	61190		66530		74370	
ANNUAL RUNOFF (CFSM)	8.37		9.10		10.2	
ANNUAL RUNOFF (INCHES)	113.63		123.54		138.09	
10 PERCENT EXCEEDS	134		157		187	
50 PERCENT EXCEEDS	71		73		69	
90 PERCENT EXCEEDS	36		26		29	

See Period of Record; partial years used in monthly summary statistics and break in record
a Apr. 6 to Apr. 8
b From rating curve extended above 300 ft^3/s
c From rating curve extended above 3,100 ft^3/s, at site and datum then in use
d At site and datum then in use
f Apr. 6 to Apr. 8

15087700 INDIAN RIVER NEAR SITKA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1983, 2001 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 2001 to September 2002 (discontinued).
WATER TEMPERATURE: May 2001 to September 2002 (discontinued).

INSTRUMENTATION.--Electronic water temperature and specific conductance recorder since May 16, 2001, recorder set to 15 minute recording interval.

REMARKS.--
SPECIFIC CONDUCTANCE: No record May 16 to July 24, 2001 due to program error. Records represent specific conductance at sensor within 3 us/cm. No variation was found within the cross sections measured on five occasions during 2002 water year. No variation was found between the mean stream specific conductance and specific conductance at the sensor.
WATER TEMPERATURE: Probe installed on May 16 2001. Records represent water temperature at sensor within 0.5°C. No variation was found within the cross sections measured five times during 2002 water year. No variation was found between the mean stream temperature and temperature at the sensor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 54 us/cm, February 7, 2002; minimum recorded, 15 us/cm, August 12, 2002 .
WATER TEMPERATURE: Maximum recorded, 10.5°C, August 12, 2002; minimum recorded, 0.5°C February 11, 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 54 us/cm, February 7; minimum recorded, 15 us/cm, August 12.
WATER TEMPERATURE: Maximum recorded, 10.5°C, August 12, minimum recorded, 0.5°C February 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
FEB								
01...	0816	35.0	48	7.2	3.5	750	12.2	93
01...	0817	30.0	48	7.2	3.5	750	12.1	93
01...	0818	25.0	48	7.1	3.5	750	12.2	93
01...	0819	20.0	48	7.0	3.5	750	12.2	93
01...	0820	15.0	48	7.0	3.5	750	12.2	93
01...	0821	10.0	48	7.0	3.5	750	12.1	93
01...	0822	5.00	48	7.0	3.5	750	12.1	93

Date	Time	Medium code	Sample type	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)
OCT													
02...	1000	9	9	9.26	270	10	49.6	762	11.9	99	7.7	36	7.5
NOV													
28...	1000	9	9	7.92	41	20	41.0	--	--	--	6.5	53	--
FEB													
01...	0845	9	9	7.85	38	10	37.6	750	12.2	93	7.1	48	3.0
APR													
06...	0900	9	9	7.61	16	10	25.6	747	12.1	88	7.1	51	2.0
MAY													
30...	0845	9	9	8.74	143	10	49.4	753	12.2	95	7.3	38	--
30...	1535	D	9	8.62	129	280	--	--	--	--	--	40	9.0
JUN													
15...	1305	D	9	8.52	114	280	--	--	--	--	--	--	--
SEP													
05...	0800	9	9	8.05	73	10	37.0	758	11.3	92	7.5	42	--
18...	0930	D	9	8.22	88	280	--	--	--	--	--	--	--
20...	1200	9	9	8.34	115	10	46.0	760	11.5	96	7.1	38	9.5

15087700 INDIAN RIVER NEAR SITKA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT													
02...	7.5	13	4.57	.481	.11	1.75	12	15	2.42	<.1	2.93	1.4	26
NOV													
28...	--	--	--	--	--	--	16	20	--	--	--	--	--
FEB													
01...	3.5	17	5.64	.614	.13	2.14	17	20	4.04	<.1	3.62	1.8	28
APR													
06...	1.5	19	6.26	.721	.12	2.30	14	17	3.89	E.1	4.11	1.9	34
MAY													
30...	4.5	13	4.54	.470	.14	1.84	13	15	3.13	<.1	2.72	1.4	22
30...	4.5	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
05...	6.5	16	5.31	.550	.12	1.93	--	--	2.28	<.1	3.67	1.8	29
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	7.5	14	4.73	.493	.18	1.88	13	16	2.12	<.1	3.18	1.5	22

Date	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, PARTICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INORGANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
OCT													
02...	21	<.015	E.07	.15	.025	<.002	--	E.003	E.006	E.003	--	--	--
NOV													
28...	--	<.015	<.10	<.10	.110	<.002	<.02	<.004	<.007	<.004	<.1	<.1	.6
FEB													
01...	28	<.015	<.10	<.10	.116	<.002	<.02	<.004	<.007	<.004	<.1	<.1	.9
APR													
06...	28	<.015	<.10	<.10	.147	<.002	<.02	<.004	<.007	E.003	<.1	<.1	.7
MAY													
30...	22	<.015	<.10	<.10	.103	<.002	<.02	<.004	<.007	<.004	<.1	<.1	1.3
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
05...	26	--	--	E.06	--	--	<.02	--	--	.004	<.1	<.1	1.0
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	22	<.015	<.10	E.07	.073	<.002	<.02	E.003	<.007	E.002	<.1	<.1	2.0

Date	CARBON, ORGANIC PARTICULATE TOTAL (MG/L AS C) (00689)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PHEOPHYTIN A, PERIPHYTON (MG/M2) (62359)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	SEDIMENT, SUS-PENDED (MG/L) (80154)	SEDIMENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SAMPLER TYPE (CODE) (84164)
OCT										
02...	--	--	--	--	--	43	E1.3	3.0	2.2	3044
NOV										
28...	<.1	--	--	--	--	--	--	1.0	.11	3044
FEB										
01...	<.1	--	--	--	--	14	E1.2	1.0	.10	3044
APR										
06...	<.1	--	--	--	--	<10	E1.2	<1.0	--	--
MAY										
30...	<.1	--	--	--	--	13	<2.0	1.0	.39	3044
30...	--	41	42.20	.5	1.6	--	--	--	--	--
JUN										
15...	--	41	43.00	.7	3.2	--	--	--	--	--
SEP										
05...	<.1	--	--	--	--	E10	E1.0	--	--	3044
18...	--	43	43.90	1.9	6.3	--	--	--	--	--
20...	<.1	--	--	--	--	32	E2.1	3.0	.93	3044

15087700 INDIAN RIVER NEAR SITKA—Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	40	36	39	48	39	44	52	52	52	48	47	47
2	41	32	38	44	37	42	52	52	52	48	47	48
3	45	41	43	47	42	44	52	52	52	47	46	46
4	46	45	46	48	47	47	52	52	52	49	47	48
5	47	45	47	49	48	48	52	51	52	49	48	48
6	45	41	43	49	49	49	52	51	52	48	38	42
7	47	45	46	49	48	49	52	35	43	43	40	42
8	47	44	45	49	45	47	47	37	43	45	38	41
9	44	40	43	47	42	45	48	43	46	46	40	45
10	40	36	38	48	44	47	45	43	44	47	41	45
11	43	36	41	49	47	48	48	40	47	49	47	48
12	44	33	40	50	49	49	47	39	43	49	49	49
13	45	44	45	50	50	50	50	47	48	49	48	49
14	46	45	46	50	45	49	50	50	50	49	49	49
15	47	45	46	48	45	47	51	50	51	49	39	46
16	46	42	45	46	43	45	51	51	51	47	40	44
17	46	34	42	48	43	46	51	51	51	48	45	47
18	39	35	37	49	48	49	52	51	52	45	37	41
19	42	36	39	50	49	50	52	51	52	45	37	42
20	45	42	44	50	49	49	52	52	52	48	45	47
21	45	42	44	50	49	50	52	51	52	50	48	49
22	46	44	45	49	35	44	52	51	52	50	50	50
23	46	45	46	48	43	47	51	40	48	51	50	50
24	45	43	44	49	48	49	43	37	41	50	50	50
25	47	44	46	50	49	50	45	43	45	51	50	51
26	48	47	47	51	50	51	45	44	45	51	51	51
27	48	47	48	51	51	51	46	44	45	52	51	51
28	48	39	44	52	51	51	47	45	46	51	51	51
29	44	40	42	52	52	52	46	44	45	51	50	50
30	47	44	46	52	52	52	47	46	47	50	48	49
31	48	47	47	---	---	---	47	46	46	49	48	49
MONTH	48	32	44	52	35	48	52	35	48	52	37	47

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	50	49	50	48	44	46	51	51	51	47	45	46
2	50	49	50	45	26	36	52	51	51	48	47	47
3	50	49	50	44	30	39	52	51	52	50	48	49
4	50	48	49	47	44	46	52	52	52	50	49	50
5	50	48	49	48	47	48	52	52	52	50	50	50
6	50	50	50	49	48	48	52	52	52	51	50	50
7	54	50	51	50	49	49	52	52	52	51	51	51
8	53	51	52	50	49	49	52	52	52	51	51	51
9	52	43	50	50	50	50	52	52	52	51	50	51
10	47	40	43	50	50	50	53	52	52	50	45	47
11	48	31	41	50	50	50	53	52	52	46	44	45
12	42	29	34	50	50	50	53	52	52	46	44	45
13	45	37	44	50	50	50	53	51	52	45	44	45
14	39	29	33	50	50	50	52	51	51	47	45	46
15	41	28	33	50	50	50	52	51	52	47	46	47
16	44	32	40	50	50	50	52	52	52	47	43	45
17	46	44	46	51	50	50	52	52	52	46	44	45
18	48	46	47	51	50	50	53	52	52	46	45	46
19	48	47	48	51	50	50	53	50	52	45	41	44
20	48	48	48	51	51	51	50	36	43	42	39	41
21	49	48	49	52	51	51	45	41	43	41	39	40
22	49	49	49	51	51	51	48	44	46	42	41	42
23	50	49	49	51	51	51	49	47	48	44	42	42
24	50	50	50	51	51	51	50	49	49	44	43	44
25	50	49	50	51	51	51	50	49	50	44	41	42
26	50	46	48	51	50	51	50	50	50	42	40	41
27	47	45	46	50	50	50	51	49	50	43	39	42
28	48	46	48	51	50	50	50	48	49	39	38	38
29	---	---	---	51	51	51	49	48	49	40	38	39
30	---	---	---	51	50	51	49	46	48	41	39	40
31	---	---	---	51	51	51	---	---	---	42	41	42
MONTH	54	28	46	52	26	49	53	36	50	51	38	45

15087700 INDIAN RIVER NEAR SITKA—Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	41	41	41	43	42	42	45	44	44	37	34	35
2	41	41	41	45	42	43	45	45	45	39	34	37
3	42	40	41	46	43	45	46	45	46	41	39	40
4	40	37	39	44	41	43	46	46	46	42	41	41
5	40	37	39	42	41	41	47	46	46	43	42	42
6	43	40	42	43	42	42	47	46	47	43	42	43
7	43	39	41	44	43	43	47	33	38	42	39	40
8	42	41	42	43	43	43	36	31	34	42	41	41
9	42	38	40	44	43	44	39	33	36	42	41	42
10	39	37	38	44	42	43	40	31	36	42	40	41
11	42	39	41	43	42	43	42	35	40	41	35	38
12	43	42	43	44	43	44	39	15	31	40	36	38
13	43	40	42	45	38	44	34	23	30	42	40	41
14	41	38	39	41	36	39	38	34	36	42	42	42
15	40	38	39	42	41	42	40	38	39	43	42	42
16	42	40	41	43	42	42	41	40	41	43	41	42
17	42	41	42	43	40	42	42	41	42	42	37	40
18	42	41	41	44	41	43	42	42	42	39	34	38
19	43	42	42	44	43	44	43	42	42	38	33	36
20	43	43	43	45	44	45	43	42	43	39	35	38
21	44	43	43	45	42	44	42	19	28	39	32	36
22	44	42	43	43	42	43	36	24	33	40	38	39
23	42	40	41	43	43	43	36	23	32	41	40	40
24	41	39	40	44	38	41	38	36	38	42	41	41
25	41	39	40	40	39	40	40	38	39	42	41	42
26	42	41	42	43	40	41	40	39	40	42	41	42
27	43	42	42	43	34	38	40	34	38	41	31	36
28	42	41	42	36	33	35	35	30	33	40	36	38
29	42	41	42	40	35	37	39	35	37	41	36	39
30	42	42	42	43	40	42	39	36	38	42	41	42
31	---	---	---	44	43	44	37	32	35	---	---	---
MONTH	44	37	41	46	33	42	47	15	39	43	31	40

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.5	7.0	7.0	5.0	4.5	5.0	3.0	3.0	3.0	4.5	4.0	4.5
2	7.5	7.0	7.5	5.0	4.0	4.5	3.5	3.0	3.5	4.5	4.0	4.5
3	7.0	6.5	7.0	5.0	3.5	4.5	4.0	3.5	3.5	4.0	4.0	4.0
4	7.0	6.5	6.5	4.5	4.0	4.5	4.0	3.0	4.0	4.5	4.0	4.0
5	7.0	6.5	6.5	4.5	4.5	4.5	4.0	3.0	3.5	5.0	4.5	4.5
6	7.0	6.5	7.0	5.0	4.5	4.5	4.0	3.0	3.5	4.5	3.5	4.0
7	6.5	6.5	6.5	5.0	4.5	5.0	4.0	1.0	2.0	4.0	3.5	4.0
8	6.5	6.5	6.5	5.0	4.5	4.5	2.5	1.0	2.0	4.0	3.5	4.0
9	7.0	6.5	6.5	5.0	4.0	4.5	3.0	1.5	2.0	4.5	4.0	4.5
10	7.0	6.5	6.5	5.0	4.5	5.0	2.5	2.0	2.0	4.5	4.0	4.0
11	6.5	6.0	6.5	4.5	4.5	4.5	3.0	2.0	3.0	4.5	4.5	4.5
12	7.0	6.0	6.5	4.5	4.5	4.5	3.0	2.0	2.5	4.5	4.5	4.5
13	6.5	6.0	6.0	5.0	4.5	5.0	3.5	3.0	3.5	4.5	4.5	4.5
14	6.0	6.0	6.0	5.0	4.5	5.0	3.5	2.0	3.0	4.5	4.5	4.5
15	6.0	5.5	6.0	5.0	4.5	4.5	3.5	3.0	3.0	4.5	3.5	4.5
16	6.0	6.0	6.0	4.5	4.0	4.5	3.5	3.0	3.0	4.0	3.5	4.0
17	6.5	6.0	6.0	5.0	4.0	4.5	3.5	3.0	3.5	4.5	4.0	4.5
18	6.5	6.0	6.5	5.0	5.0	5.0	3.5	3.0	3.5	4.0	3.0	3.5
19	6.0	5.5	6.0	5.5	5.0	5.0	3.5	3.0	3.5	4.0	3.0	3.5
20	6.0	5.5	6.0	5.5	5.0	5.5	4.0	3.5	4.0	4.0	3.5	4.0
21	6.0	6.0	6.0	5.5	5.0	5.5	4.0	4.0	4.0	4.0	3.5	4.0
22	6.0	5.5	5.5	5.0	4.5	5.0	4.0	3.5	4.0	4.0	3.5	3.5
23	5.5	5.5	5.5	4.5	4.5	4.5	3.5	1.5	3.0	4.0	3.5	4.0
24	5.5	4.5	5.0	4.5	4.0	4.0	2.5	1.0	2.0	4.0	3.0	4.0
25	5.0	5.0	5.0	4.0	3.5	4.0	3.5	2.5	3.0	4.0	3.5	3.5
26	5.5	5.0	5.0	3.5	3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5
27	5.0	5.0	5.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5
28	5.0	4.5	5.0	3.5	3.5	3.5	4.0	3.5	4.0	3.5	3.5	3.5
29	4.5	4.0	4.5	3.5	3.0	3.5	4.0	3.5	3.5	3.5	3.5	3.5
30	5.0	4.5	5.0	3.5	3.0	3.0	4.5	3.5	4.0	3.5	3.0	3.5
31	5.0	4.5	5.0	---	---	---	4.5	4.0	4.0	3.5	3.0	3.0
MONTH	7.5	4.0	6.0	5.5	3.0	4.5	4.5	1.0	3.2	5.0	3.0	4.0

15087700 INDIAN RIVER NEAR SITKA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	3.5	3.5	3.5	2.5	3.0	3.5	2.5	3.0	3.5	3.0	3.5
2	3.5	3.0	3.5	2.5	1.0	1.5	4.0	2.0	2.5	4.5	3.0	3.5
3	3.5	3.5	3.5	3.0	1.5	2.5	4.0	2.0	2.5	4.0	2.5	3.5
4	3.5	2.5	3.0	3.0	2.5	2.5	3.5	2.0	2.5	4.5	3.0	3.5
5	3.5	3.0	3.5	3.0	2.5	2.5	4.0	2.5	3.0	4.5	3.0	3.5
6	3.5	3.0	3.0	3.0	2.5	2.5	4.0	2.5	3.0	4.5	3.0	3.5
7	3.0	2.5	3.0	3.0	2.5	2.5	4.0	2.0	2.5	4.0	3.5	3.5
8	3.0	2.5	3.0	3.0	2.5	2.5	4.0	2.0	2.5	5.0	3.5	4.0
9	3.5	2.0	3.0	3.0	2.5	2.5	4.0	2.0	3.0	4.0	3.5	4.0
10	2.0	1.5	2.0	3.5	3.0	3.0	4.0	2.5	3.0	4.0	3.5	3.5
11	2.5	0.5	1.5	3.5	3.0	3.0	4.0	2.0	3.0	4.0	3.5	3.5
12	2.5	1.0	1.5	3.5	3.0	3.5	3.5	2.5	3.0	4.0	3.5	3.5
13	3.0	2.0	2.5	3.5	2.5	3.0	4.0	2.5	3.0	4.0	3.5	3.5
14	2.5	1.5	2.0	4.0	2.5	3.0	4.0	2.5	3.0	4.0	3.0	3.5
15	3.0	1.5	2.0	3.5	2.5	2.5	3.5	2.5	3.0	4.5	3.5	4.0
16	3.0	1.5	2.5	3.5	2.5	2.5	4.0	2.0	3.0	5.0	3.5	4.5
17	3.5	3.0	3.5	3.0	2.0	2.5	4.0	2.0	2.5	4.0	3.5	4.0
18	4.0	3.5	3.5	3.5	2.5	2.5	4.0	2.0	3.0	5.0	4.0	4.5
19	4.0	3.0	4.0	3.5	2.0	2.5	3.5	2.5	3.0	5.5	3.5	4.5
20	4.0	3.0	3.5	3.5	2.0	2.5	2.5	1.5	2.0	5.5	4.0	4.5
21	4.0	3.5	3.5	3.5	2.0	2.5	2.5	1.5	2.0	4.5	4.0	4.5
22	3.5	3.0	3.5	4.0	2.5	3.0	3.5	1.5	2.5	4.5	4.0	4.0
23	3.5	3.0	3.0	4.5	3.0	3.5	3.5	2.5	3.0	4.5	4.0	4.0
24	3.5	3.0	3.0	4.0	2.5	3.0	4.0	2.5	3.0	5.5	4.0	4.5
25	3.5	3.5	3.5	3.5	2.5	3.0	4.5	2.5	3.0	5.5	4.0	4.5
26	3.5	2.5	3.5	3.5	2.5	3.0	4.0	2.5	3.0	5.0	4.5	4.5
27	3.5	2.5	3.0	3.5	2.0	2.5	4.0	3.0	3.5	5.0	4.5	4.5
28	3.5	3.0	3.5	3.0	2.0	2.5	5.0	3.0	3.5	5.0	4.5	5.0
29	---	---	---	3.5	2.5	3.0	4.5	3.0	3.5	5.0	4.5	4.5
30	---	---	---	3.5	2.5	3.0	4.5	3.0	3.5	5.0	4.5	4.5
31	---	---	---	3.5	2.5	3.0	---	---	---	5.0	4.5	4.5
MONTH	4.0	0.5	3.0	4.5	1.0	2.7	5.0	1.5	2.9	5.5	2.5	4.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.0	4.5	4.5	6.5	6.0	6.5	7.0	6.0	6.5	8.5	8.0	8.0
2	5.0	4.5	5.0	6.5	6.0	6.0	7.0	6.0	6.5	8.0	7.5	8.0
3	5.5	4.5	5.0	6.0	6.0	6.0	7.0	5.5	6.0	7.5	7.0	7.5
4	5.0	4.5	5.0	6.5	6.0	6.0	7.0	5.5	6.0	7.5	6.5	7.0
5	5.0	4.5	5.0	6.5	6.0	6.0	7.0	6.0	6.5	7.0	6.5	7.0
6	5.0	4.0	4.5	6.5	6.0	6.5	6.5	6.0	6.5	7.0	6.5	7.0
7	5.0	4.5	5.0	7.5	5.5	6.5	9.5	6.0	8.0	8.0	7.0	7.5
8	5.5	4.5	5.0	7.5	6.0	6.5	9.0	8.0	8.5	7.5	7.0	7.5
9	5.0	5.0	5.0	7.5	6.5	7.0	8.0	7.0	7.5	7.5	7.0	7.5
10	5.5	5.0	5.0	7.5	6.5	7.0	8.5	7.0	8.0	8.0	7.0	7.5
11	5.0	4.5	5.0	7.0	6.5	6.5	8.0	7.0	7.0	8.0	7.5	8.0
12	6.0	4.5	5.0	7.0	6.0	6.5	10.5	7.5	8.5	8.0	7.5	8.0
13	6.5	5.0	5.5	7.5	6.0	6.5	9.5	7.5	8.5	7.5	7.0	7.0
14	7.0	5.0	6.0	7.5	6.5	7.0	7.5	7.0	7.5	7.0	6.5	7.0
15	6.0	5.5	5.5	7.5	6.5	7.0	7.5	6.5	7.0	7.5	7.0	7.0
16	6.0	5.0	5.5	7.5	7.0	7.0	6.5	6.5	6.5	7.5	7.0	7.0
17	7.0	5.5	6.0	7.5	6.5	7.0	6.5	6.0	6.5	8.0	7.0	7.5
18	6.0	5.5	5.5	7.0	7.0	7.0	6.5	6.5	6.5	8.0	7.5	7.5
19	5.5	5.5	5.5	8.0	6.5	7.0	6.5	6.0	6.5	8.0	7.5	7.5
20	5.5	5.0	5.5	7.5	6.5	7.0	7.0	6.5	6.5	8.0	7.0	7.5
21	6.5	5.0	5.5	7.5	6.5	7.0	10.0	7.0	9.0	8.0	7.0	7.5
22	6.5	5.5	6.0	7.5	7.5	7.5	10.0	7.5	8.0	7.5	7.0	7.5
23	6.5	6.0	6.0	7.5	7.0	7.5	10.0	7.5	8.5	7.5	7.0	7.5
24	6.5	6.0	6.0	8.5	7.5	8.0	7.5	7.0	7.0	7.5	7.0	7.0
25	7.0	6.0	6.0	8.0	7.5	8.0	7.5	7.0	7.0	7.5	7.0	7.0
26	6.0	6.0	6.0	7.5	7.0	7.0	7.5	7.0	7.5	7.5	7.0	7.0
27	6.5	5.5	6.0	8.0	7.0	7.5	9.0	7.5	8.0	9.0	7.5	8.5
28	7.0	6.0	6.5	7.5	7.0	7.5	9.0	8.0	9.0	7.5	7.5	7.5
29	7.0	6.0	6.5	7.5	6.5	7.0	8.0	7.5	8.0	7.5	6.5	7.0
30	7.0	6.0	6.5	7.0	6.0	6.5	8.0	7.5	7.5	6.5	6.0	6.5
31	---	---	---	7.0	6.0	6.5	8.5	8.0	8.0	---	---	---
MONTH	7.0	4.0	5.5	8.5	5.5	6.9	10.5	5.5	7.4	9.0	6.0	7.4

15087700 INDIAN RIVER AT SITKA

LOCATION.--Lat 57°03'12", long 135°18'52", in NE$\frac{1}{4}$ SW$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 36, T. 55 S., R. 63 E. (Sitka A-4 quad), Hydrologic Unit 19010203, Greater Sitka Borough, in Tongass National Forest, on Baranof Island, on right bank 500 ft upstream from Sawmill Creek Road, 600 ft downstream from Sheldon Jackson College Diversion, and 0.6 mi above mouth.

DRAINAGE AREA.--12.0 mi^2

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above sea level, from topographic map.

REMARKS. Records good. Flow is diverted 600 ft upstream to Sheldon Jackson College. No estimated daily discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	77	20	56	20	28	9.9	59	103	37	61	147
2	282	123	19	52	19	270	9.8	47	101	35	53	123
3	100	108	19	59	19	143	9.6	34	93	33	46	71
4	67	71	18	48	21	43	9.6	27	133	37	41	53
5	54	55	18	42	19	29	9.4	25	132	50	37	44
6	94	44	17	96	16	24	9.2	23	92	38	33	36
7	61	41	74	104	15	22	9.2	24	106	34	176	59
8	61	71	70	122	15	20	9.2	23	89	33	308	44
9	85	129	65	73	16	19	9.2	25	109	32	192	38
10	241	83	85	71	52	18	9.3	51	152	36	244	43
11	156	61	49	51	240	18	9.3	75	102	36	127	76
12	452	46	86	45	418	16	9.3	74	79	31	1240	74
13	157	40	37	40	61	15	9.7	95	81	35	594	43
14	103	48	28	38	383	15	10	74	102	87	167	31
15	80	61	24	63	432	14	10	60	96	43	102	28
16	143	80	23	83	176	13	10	85	75	38	86	33
17	806	68	21	46	68	13	10	95	68	44	79	56
18	1060	46	20	123	51	12	10	79	66	42	73	88
19	606	39	20	140	42	12	11	105	58	34	67	147
20	163	47	18	65	35	12	57	153	54	31	52	105
21	133	49	18	46	30	12	41	157	50	37	828	177
22	104	130	19	37	26	12	20	133	50	49	190	94
23	89	76	38	34	23	11	15	122	59	44	384	76
24	113	48	211	30	21	11	14	100	57	71	94	65
25	75	38	105	26	21	11	14	114	55	87	75	62
26	58	32	92	23	23	12	14	130	46	66	69	59
27	53	29	79	21	30	12	15	113	41	126	84	209
28	79	26	70	21	23	12	17	151	43	250	215	120
29	111	23	83	23	---	11	23	135	42	206	109	103
30	67	21	67	24	---	11	41	120	39	105	89	62
31	50	---	69	26	---	11	---	99	---	74	163	---
TOTAL	5859	1810	1582	1728	2315	882	454.7	2607	2373	1901	6078	2366
MEAN	189	60.3	51.0	55.7	82.7	28.5	15.2	84.1	79.1	61.3	196	78.9
MAX	1060	130	211	140	432	270	57	157	152	250	1240	209
MIN	50	21	17	21	15	11	9.2	23	39	31	33	28
MED	103	49	37	46	24	13	10	85	77	38	94	64
AC-FT	11620	3590	3140	3430	4590	1750	902	5170	4710	3770	12060	4690

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	200	66.9	110	77.4	52.4	54.5	55.3	94.0	91.1	60.8	81.1	132
MAX	248	87.1	240	125	82.7	107	108	139	130	67.7	196	209
(WY)	1999	2001	2000	1999	2002	2001	1999	1999	1999	2000	2002	2000
MIN	141	38.0	51.0	55.7	23.6	28.2	15.2	72.3	74.7	51.6	22.0	78.9
(WY)	2001	1999	2002	2002	1999	1999	2002	2000	2001	2001	2001	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	28626		29955.7			
ANNUAL MEAN	78.4		82.1		90.0	
HIGHEST ANNUAL MEAN					103	2000
LOWEST ANNUAL MEAN					79.1	2001
HIGHEST DAILY MEAN	1060	Oct 18	1240	Aug 12	2390	Oct 19 1998
LOWEST DAILY MEAN	15	Aug 24	a9.2	Apr 6	a9.2	Apr 6 2002
ANNUAL SEVEN-DAY MINIMUM	16	Aug 20	9.2	Apr 6	9.2	Apr 6 2002
MAXIMUM PEAK FLOW			b4930	Aug 12	b5740	Oct 19 1998
MAXIMUM PEAK STAGE			26.46	Aug 12	26.84	Oct 19 1998
INSTANTANEOUS LOW FLOW			9.0	Apr 9	9.0	Apr 9 2002
ANNUAL RUNOFF (AC-FT)	56780		59420		65180	
10 PERCENT EXCEEDS	119		151		163	
50 PERCENT EXCEEDS	56		52		55	
90 PERCENT EXCEEDS	23		14		21	

a Apr. 6 to Apr. 9, 2002

b From rating curve extended above 1050 ft^3/s

15087700 INDIAN RIVER NEAR SITKA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1983, 2001 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 2001 to September 2002 (discontinued).
WATER TEMPERATURE: May 2001 to September 2002 (discontinued).

INSTRUMENTATION.--Electronic water temperature and specific conductance recorder since May 16, 2001, recorder set to 15 minute recording interval.

REMARKS.--
SPECIFIC CONDUCTANCE: No record May 16 to July 24, 2001 due to program error. Records represent specific conductance at sensor within 3 us/cm. No variation was found within the cross sections measured on five occasions during 2002 water year. No variation was found between the mean stream specific conductance and specific conductance at the sensor.
WATER TEMPERATURE: Probe installed on May 16 2001. Records represent water temperature at sensor within 0.5°C. No variation was found within the cross sections measured five times during 2002 water year. No variation was found between the mean stream temperature and temperature at the sensor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 54 us/cm, February 7, 2002; minimum recorded, 15 us/cm, August 12, 2002 .
WATER TEMPERATURE: Maximum recorded, 10.5°C, August 12, 2002; minimum recorded, 0.5°C February 11, 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 54 us/cm, February 7; minimum recorded, 15 us/cm, August 12.
WATER TEMPERATURE: Maximum recorded, 10.5°C, August 12, minimum recorded, 0.5°C February 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
	FEB							
01...	0816	35.0	48	7.2	3.5	750	12.2	93
01...	0817	30.0	48	7.2	3.5	750	12.1	93
01...	0818	25.0	48	7.1	3.5	750	12.2	93
01...	0819	20.0	48	7.0	3.5	750	12.2	93
01...	0820	15.0	48	7.0	3.5	750	12.2	93
01...	0821	10.0	48	7.0	3.5	750	12.1	93
01...	0822	5.00	48	7.0	3.5	750	12.1	93

Date	Time	Medium code	Sample type	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)
OCT													
02...	1000	9	9	9.26	270	10	49.6	762	11.9	99	7.7	36	7.5
NOV													
28...	1000	9	9	7.92	41	20	41.0	--	--	--	6.5	53	--
FEB													
01...	0845	9	9	7.85	38	10	37.6	750	12.2	93	7.1	48	3.0
APR													
06...	0900	9	9	7.61	16	10	25.6	747	12.1	88	7.1	51	2.0
MAY													
30...	0845	9	9	8.74	143	10	49.4	753	12.2	95	7.3	38	--
30...	1535	D	9	8.62	129	280	--	--	--	--	--	40	9.0
JUN													
15...	1305	D	9	8.52	114	280	--	--	--	--	--	--	--
SEP													
05...	0800	9	9	8.05	73	10	37.0	758	11.3	92	7.5	42	--
18...	0930	D	9	8.22	88	280	--	--	--	--	--	--	--
20...	1200	9	9	8.34	115	10	46.0	760	11.5	96	7.1	38	9.5

15087700 INDIAN RIVER NEAR SITKA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT													
02...	7.5	13	4.57	.481	.11	1.75	12	15	2.42	<.1	2.93	1.4	26
NOV													
28...	--	--	--	--	--	--	16	20	--	--	--	--	--
FEB													
01...	3.5	17	5.64	.614	.13	2.14	17	20	4.04	<.1	3.62	1.8	28
APR													
06...	1.5	19	6.26	.721	.12	2.30	14	17	3.89	E.1	4.11	1.9	34
MAY													
30...	4.5	13	4.54	.470	.14	1.84	13	15	3.13	<.1	2.72	1.4	22
30...	4.5	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
05...	6.5	16	5.31	.550	.12	1.93	--	--	2.28	<.1	3.67	1.8	29
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	7.5	14	4.73	.493	.18	1.88	13	16	2.12	<.1	3.18	1.5	22

Date	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
OCT													
02...	21	<.015	E.07	.15	.025	<.002	--	E.003	E.006	E.003	--	--	--
NOV													
28...	--	<.015	<.10	<.10	.110	<.002	<.02	<.004	<.007	<.004	<.1	<.1	.6
FEB													
01...	28	<.015	<.10	<.10	.116	<.002	<.02	<.004	<.007	<.004	<.1	<.1	.9
APR													
06...	28	<.015	<.10	<.10	.147	<.002	<.02	<.004	<.007	E.003	<.1	<.1	.7
MAY													
30...	22	<.015	<.10	<.10	.103	<.002	<.02	<.004	<.007	<.004	<.1	<.1	1.3
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
05...	26	--	--	E.06	--	--	<.02	--	--	.004	<.1	<.1	1.0
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	22	<.015	<.10	E.07	.073	<.002	<.02	E.003	<.007	E.002	<.1	<.1	2.0

Date	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PHEO-PHYTIN A, PERI-PHYTON (MG/M2) (62359)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SAMPLER TYPE (CODE) (84164)
OCT										
02...	--	--	--	--	--	43	E1.3	3.0	2.2	3044
NOV										
28...	<.1	--	--	--	--	--	--	1.0	.11	3044
FEB										
01...	<.1	--	--	--	--	14	E1.2	1.0	.10	3044
APR										
06...	<.1	--	--	--	--	<10	E1.2	<1.0	--	--
MAY										
30...	<.1	--	--	--	--	13	<2.0	1.0	.39	3044
30...	--	41	42.20	.5	1.6	--	--	--	--	--
JUN										
15...	--	41	43.00	.7	3.2	--	--	--	--	--
SEP										
05...	<.1	--	--	--	--	E10	E1.0	--	--	3044
18...	--	43	43.90	1.9	6.3	--	--	--	--	--
20...	<.1	--	--	--	--	32	E2.1	3.0	.93	3044

15087700 INDIAN RIVER NEAR SITKA—Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	40	36	39	48	39	44	52	52	52	48	47	47
2	41	32	38	44	37	42	52	52	52	48	47	48
3	45	41	43	47	42	44	52	52	52	47	46	46
4	46	45	46	48	47	47	52	52	52	49	47	48
5	47	45	47	49	48	48	52	51	52	49	48	48
6	45	41	43	49	49	49	52	51	52	48	38	42
7	47	45	46	49	48	49	52	35	43	43	40	42
8	47	44	45	49	45	47	47	37	43	45	38	41
9	44	40	43	47	42	45	48	43	46	46	40	45
10	40	36	38	48	44	47	45	43	44	47	41	45
11	43	36	41	49	47	48	48	40	47	49	47	48
12	44	33	40	50	49	49	47	39	43	49	49	49
13	45	44	45	50	50	50	50	47	48	49	48	49
14	46	45	46	50	45	49	50	50	50	49	49	49
15	47	45	46	48	45	47	51	50	51	49	39	46
16	46	42	45	46	43	45	51	51	51	47	40	44
17	46	34	42	48	43	46	51	51	51	48	45	47
18	39	35	37	49	48	49	52	51	52	45	37	41
19	42	36	39	50	49	50	52	51	52	45	37	42
20	45	42	44	50	49	49	52	52	52	48	45	47
21	45	42	44	50	49	50	52	51	52	50	48	49
22	46	44	45	49	35	44	52	51	52	50	50	50
23	46	45	46	48	43	47	51	40	48	51	50	50
24	45	43	44	49	48	49	43	37	41	50	50	50
25	47	44	46	50	49	50	45	43	45	51	50	51
26	48	47	47	51	50	51	45	44	45	51	51	51
27	48	47	48	51	51	51	46	44	45	52	51	51
28	48	39	44	52	51	51	47	45	46	51	51	51
29	44	40	42	52	52	52	46	44	45	51	50	50
30	47	44	46	52	52	52	47	46	47	50	48	49
31	48	47	47	---	---	---	47	46	46	49	48	49
MONTH	48	32	44	52	35	48	52	35	48	52	37	47

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	50	49	50	48	44	46	51	51	51	47	45	46
2	50	49	50	45	26	36	52	51	51	48	47	47
3	50	49	50	44	30	39	52	51	52	50	48	49
4	50	48	49	47	44	46	52	52	52	50	49	50
5	50	48	49	48	47	48	52	52	52	50	50	50
6	50	50	50	49	48	48	52	52	52	51	50	50
7	54	50	51	50	49	49	52	52	52	51	51	51
8	53	51	52	50	49	49	52	52	52	51	51	51
9	52	43	50	50	50	50	52	52	52	51	50	51
10	47	40	43	50	50	50	53	52	52	50	45	47
11	48	31	41	50	50	50	53	52	52	46	44	45
12	42	29	34	50	50	50	53	52	52	46	44	45
13	45	37	44	50	50	50	53	51	52	45	44	45
14	39	29	33	50	50	50	52	51	51	47	45	46
15	41	28	33	50	50	50	52	51	52	47	46	47
16	44	32	40	50	50	50	52	52	52	47	43	45
17	46	44	46	51	50	50	52	52	52	46	44	45
18	48	46	47	51	50	50	53	52	52	46	45	46
19	48	47	48	51	50	50	53	50	52	45	41	44
20	48	48	48	51	51	51	50	36	43	42	39	41
21	49	48	49	52	51	51	45	41	43	41	39	40
22	49	49	49	51	51	51	48	44	46	42	41	42
23	50	49	49	51	51	51	49	47	48	44	42	42
24	50	50	50	51	51	51	50	49	49	44	43	44
25	50	49	50	51	51	51	50	49	50	44	41	42
26	50	46	48	51	50	51	50	50	50	42	40	41
27	47	45	46	50	50	50	51	49	50	43	39	42
28	48	46	48	51	50	50	50	48	49	39	38	38
29	---	---	---	51	51	51	49	48	49	40	38	39
30	---	---	---	51	50	51	49	46	48	41	39	40
31	---	---	---	51	51	51	---	---	---	42	41	42
MONTH	54	28	46	52	26	49	53	36	50	51	38	45

15087700 INDIAN RIVER NEAR SITKA—Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	41	41	41	43	42	42	45	44	44	37	34	35
2	41	41	41	45	42	43	45	45	45	39	34	37
3	42	40	41	46	43	45	46	45	46	41	39	40
4	40	37	39	44	41	43	46	46	46	42	41	41
5	40	37	39	42	41	41	47	46	46	43	42	42
6	43	40	42	43	42	42	47	46	47	43	42	43
7	43	39	41	44	43	43	47	33	38	42	39	40
8	42	41	42	43	43	43	36	31	34	42	41	41
9	42	38	40	44	43	44	39	33	36	42	41	42
10	39	37	38	44	42	43	40	31	36	42	40	41
11	42	39	41	43	42	43	42	35	40	41	35	38
12	43	42	43	44	43	44	39	15	31	40	36	38
13	43	40	42	45	38	44	34	23	30	42	40	41
14	41	38	39	41	36	39	38	34	36	42	42	42
15	40	38	39	42	41	42	40	38	39	43	42	42
16	42	40	41	43	42	42	41	40	41	43	41	42
17	42	41	42	43	40	42	42	41	42	42	37	40
18	42	41	41	44	41	43	42	42	42	39	34	38
19	43	42	42	44	43	44	43	42	42	38	33	36
20	43	43	43	45	44	45	43	42	43	39	35	38
21	44	43	43	45	42	44	42	19	28	39	32	36
22	44	42	43	43	42	43	36	24	33	40	38	39
23	42	40	41	43	43	43	36	23	32	41	40	40
24	41	39	40	44	38	41	38	36	38	42	41	41
25	41	39	40	40	39	40	40	38	39	42	41	42
26	42	41	42	43	40	41	40	39	40	42	41	42
27	43	42	42	43	34	38	40	34	38	41	31	36
28	42	41	42	36	33	35	35	30	33	40	36	38
29	42	41	42	40	35	37	39	35	37	41	36	39
30	42	42	42	43	40	42	39	36	38	42	41	42
31	---	---	---	44	43	44	37	32	35	---	---	---
MONTH	44	37	41	46	33	42	47	15	39	43	31	40

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.5	7.0	7.0	5.0	4.5	5.0	3.0	3.0	3.0	4.5	4.0	4.5
2	7.5	7.0	7.5	5.0	4.0	4.5	3.5	3.0	3.5	4.5	4.0	4.5
3	7.0	6.5	7.0	5.0	3.5	4.5	4.0	3.5	3.5	4.0	4.0	4.0
4	7.0	6.5	6.5	4.5	4.0	4.5	4.0	3.0	4.0	4.5	4.0	4.0
5	7.0	6.5	6.5	4.5	4.5	4.5	4.0	3.0	3.5	5.0	4.5	4.5
6	7.0	6.5	7.0	5.0	4.5	4.5	4.0	3.0	3.5	4.5	3.5	4.0
7	6.5	6.5	6.5	5.0	4.5	5.0	4.0	1.0	2.0	4.0	3.5	4.0
8	6.5	6.5	6.5	5.0	4.5	4.5	2.5	1.0	2.0	4.0	3.5	4.0
9	7.0	6.5	6.5	5.0	4.0	4.5	3.0	1.5	2.0	4.5	4.0	4.5
10	7.0	6.5	6.5	5.0	4.5	5.0	2.5	2.0	2.0	4.5	4.0	4.0
11	6.5	6.0	6.5	4.5	4.5	4.5	3.0	2.0	3.0	4.5	4.5	4.5
12	7.0	6.0	6.5	4.5	4.5	4.5	3.0	2.0	2.5	4.5	4.5	4.5
13	6.5	6.0	6.0	5.0	4.5	5.0	3.5	3.0	3.5	4.5	4.5	4.5
14	6.0	6.0	6.0	5.0	4.5	5.0	3.5	2.0	3.0	4.5	4.5	4.5
15	6.0	5.5	6.0	5.0	4.5	4.5	3.5	3.0	3.0	4.5	3.5	4.5
16	6.0	6.0	6.0	4.5	4.0	4.5	3.5	3.0	3.0	4.0	3.5	4.0
17	6.5	6.0	6.0	5.0	4.0	4.5	3.5	3.0	3.5	4.5	4.0	4.5
18	6.5	6.0	6.5	5.0	5.0	5.0	3.5	3.0	3.5	4.0	3.0	3.5
19	6.0	5.5	6.0	5.5	5.0	5.0	3.5	3.0	3.5	4.0	3.0	3.5
20	6.0	5.5	6.0	5.5	5.0	5.5	4.0	3.5	4.0	4.0	3.5	4.0
21	6.0	6.0	6.0	5.5	5.0	5.5	4.0	4.0	4.0	4.0	3.5	4.0
22	6.0	5.5	5.5	5.0	4.5	5.0	4.0	3.5	4.0	4.0	3.5	3.5
23	5.5	5.5	5.5	4.5	4.5	4.5	3.5	1.5	3.0	4.0	3.5	4.0
24	5.5	4.5	5.0	4.5	4.0	4.0	2.5	1.0	2.0	4.0	3.0	4.0
25	5.0	5.0	5.0	4.0	3.5	4.0	3.5	2.5	3.0	4.0	3.5	3.5
26	5.5	5.0	5.0	3.5	3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5
27	5.0	5.0	5.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5
28	5.0	4.5	5.0	3.5	3.5	3.5	4.0	3.5	4.0	3.5	3.5	3.5
29	4.5	4.0	4.5	3.5	3.0	3.5	4.0	3.5	3.5	3.5	3.5	3.5
30	5.0	4.5	5.0	3.5	3.0	3.0	4.5	3.5	4.0	3.5	3.0	3.5
31	5.0	4.5	5.0	---	---	---	4.5	4.0	4.0	3.5	3.0	3.0
MONTH	7.5	4.0	6.0	5.5	3.0	4.5	4.5	1.0	3.2	5.0	3.0	4.0

15087700 INDIAN RIVER NEAR SITKA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	3.5	3.5	3.5	2.5	3.0	3.5	2.5	3.0	3.5	3.0	3.5
2	3.5	3.0	3.5	2.5	1.0	1.5	4.0	2.0	2.5	4.5	3.0	3.5
3	3.5	3.5	3.5	3.0	1.5	2.5	4.0	2.0	2.5	4.0	2.5	3.5
4	3.5	2.5	3.0	3.0	2.5	2.5	3.5	2.0	2.5	4.5	3.0	3.5
5	3.5	3.0	3.5	3.0	2.5	2.5	4.0	2.5	3.0	4.5	3.0	3.5
6	3.5	3.0	3.0	3.0	2.5	2.5	4.0	2.5	3.0	4.5	3.0	3.5
7	3.0	2.5	3.0	3.0	2.5	2.5	4.0	2.0	2.5	4.0	3.5	3.5
8	3.0	2.5	3.0	3.0	2.5	2.5	4.0	2.0	2.5	5.0	3.5	4.0
9	3.5	2.0	3.0	3.0	2.5	2.5	4.0	2.0	3.0	4.0	3.5	4.0
10	2.0	1.5	2.0	3.5	3.0	3.0	4.0	2.5	3.0	4.0	3.5	3.5
11	2.5	0.5	1.5	3.5	3.0	3.0	4.0	2.0	3.0	4.0	3.5	3.5
12	2.5	1.0	1.5	3.5	3.0	3.5	3.5	2.5	3.0	4.0	3.5	3.5
13	3.0	2.0	2.5	3.5	2.5	3.0	4.0	2.5	3.0	4.0	3.5	3.5
14	2.5	1.5	2.0	4.0	2.5	3.0	4.0	2.5	3.0	4.0	3.0	3.5
15	3.0	1.5	2.0	3.5	2.5	2.5	3.5	2.5	3.0	4.5	3.5	4.0
16	3.0	1.5	2.5	3.5	2.5	2.5	4.0	2.0	3.0	5.0	3.5	4.5
17	3.5	3.0	3.5	3.0	2.0	2.5	4.0	2.0	2.5	4.0	3.5	4.0
18	4.0	3.5	3.5	3.5	2.5	2.5	4.0	2.0	3.0	5.0	4.0	4.5
19	4.0	3.0	4.0	3.5	2.0	2.5	3.5	2.5	3.0	5.5	3.5	4.5
20	4.0	3.0	3.5	3.5	2.0	2.5	2.5	1.5	2.0	5.5	4.0	4.5
21	4.0	3.5	3.5	3.5	2.0	2.5	2.5	1.5	2.0	4.5	4.0	4.5
22	3.5	3.0	3.5	4.0	2.5	3.0	3.5	1.5	2.5	4.5	4.0	4.0
23	3.5	3.0	3.0	4.5	3.0	3.5	3.5	2.5	3.0	4.5	4.0	4.0
24	3.5	3.0	3.0	4.0	2.5	3.0	4.0	2.5	3.0	5.5	4.0	4.5
25	3.5	3.5	3.5	3.5	2.5	3.0	4.5	2.5	3.0	5.5	4.0	4.5
26	3.5	2.5	3.5	3.5	2.5	3.0	4.0	2.5	3.0	5.0	4.5	4.5
27	3.5	2.5	3.0	3.5	2.0	2.5	4.0	3.0	3.5	5.0	4.5	4.5
28	3.5	3.0	3.5	3.0	2.0	2.5	5.0	3.0	3.5	5.0	4.5	5.0
29	---	---	---	3.5	2.5	3.0	4.5	3.0	3.5	5.0	4.5	4.5
30	---	---	---	3.5	2.5	3.0	4.5	3.0	3.5	5.0	4.5	4.5
31	---	---	---	3.5	2.5	3.0	---	---	---	5.0	4.5	4.5
MONTH	4.0	0.5	3.0	4.5	1.0	2.7	5.0	1.5	2.9	5.5	2.5	4.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.0	4.5	4.5	6.5	6.0	6.5	7.0	6.0	6.5	8.5	8.0	8.0
2	5.0	4.5	5.0	6.5	6.0	6.0	7.0	6.0	6.5	8.0	7.5	8.0
3	5.5	4.5	5.0	6.0	6.0	6.0	7.0	5.5	6.0	7.5	7.0	7.5
4	5.0	4.5	5.0	6.5	6.0	6.0	7.0	5.5	6.0	7.5	6.5	7.0
5	5.0	4.5	5.0	6.5	6.0	6.0	7.0	6.0	6.5	7.0	6.5	7.0
6	5.0	4.0	4.5	6.5	6.0	6.5	6.5	6.0	6.5	7.0	6.5	7.0
7	5.0	4.5	5.0	7.5	5.5	6.5	9.5	6.0	8.0	8.0	7.0	7.5
8	5.5	4.5	5.0	7.5	6.0	6.5	9.0	8.0	8.5	7.5	7.0	7.5
9	5.0	5.0	5.0	7.5	6.5	7.0	8.0	7.0	7.5	7.5	7.0	7.5
10	5.5	5.0	5.0	7.5	6.5	7.0	8.5	7.0	8.0	8.0	7.0	7.5
11	5.0	4.5	5.0	7.0	6.5	6.5	8.0	7.0	7.0	8.0	7.5	8.0
12	6.0	4.5	5.0	7.0	6.0	6.5	10.5	7.5	8.5	8.0	7.5	8.0
13	6.5	5.0	5.5	7.5	6.0	6.5	9.5	7.5	8.5	7.5	7.0	7.0
14	7.0	5.0	6.0	7.5	6.5	7.0	7.5	7.0	7.5	7.0	6.5	7.0
15	6.0	5.5	5.5	7.5	6.5	7.0	7.5	6.5	7.0	7.5	7.0	7.0
16	6.0	5.0	5.5	7.5	7.0	7.0	6.5	6.5	6.5	7.5	7.0	7.0
17	7.0	5.5	6.0	7.5	6.5	7.0	6.5	6.0	6.5	8.0	7.0	7.5
18	6.0	5.5	5.5	7.0	7.0	7.0	6.5	6.5	6.5	8.0	7.5	7.5
19	5.5	5.5	5.5	8.0	6.5	7.0	6.5	6.0	6.5	8.0	7.5	7.5
20	5.5	5.0	5.5	7.5	6.5	7.0	7.0	6.5	6.5	8.0	7.0	7.5
21	6.5	5.0	5.5	7.5	6.5	7.0	10.0	7.0	9.0	8.0	7.0	7.5
22	6.5	5.5	6.0	7.5	7.5	7.5	10.0	7.5	8.0	7.5	7.0	7.5
23	6.5	6.0	6.0	7.5	7.0	7.5	10.0	7.5	8.5	7.5	7.0	7.5
24	6.5	6.0	6.0	8.5	7.5	8.0	7.5	7.0	7.0	7.5	7.0	7.0
25	7.0	6.0	6.0	8.0	7.5	8.0	7.5	7.0	7.0	7.5	7.0	7.0
26	6.0	6.0	6.0	7.5	7.0	7.0	7.5	7.0	7.5	7.5	7.0	7.0
27	6.5	5.5	6.0	8.0	7.0	7.5	9.0	7.5	8.0	9.0	7.5	8.5
28	7.0	6.0	6.5	7.5	7.0	7.5	9.0	8.0	9.0	7.5	7.5	7.5
29	7.0	6.0	6.5	7.5	6.5	7.0	8.0	7.5	8.0	7.5	6.5	7.0
30	7.0	6.0	6.5	7.0	6.0	6.5	8.0	7.5	7.5	6.5	6.0	6.5
31	---	---	---	7.0	6.0	6.5	8.5	8.0	8.0	---	---	---
MONTH	7.0	4.0	5.5	8.5	5.5	6.9	10.5	5.5	7.4	9.0	6.0	7.4

15088000 SAWMILL CREEK NEAR SITKA

LOCATION.--Lat 57°03'05", long 135°13'40", in $NE^1/_4$ $SW^1/_4$ sec. 34, T. 55 S., R. 64 E. (Sitka A-4 quad.), Hydrologic Unit 19010401, on Baranof Island, in Tongass National Forest, on left bank 500 ft upstream from mouth, 1.6 mi downstream from Blue Lake, and 4.0 mi east of Sitka.

DRAINAGE AREA.--39.0 mi^2.

PERIOD OF RECORD.-- September 1920 to December 1923, February 1928 to September 1942, October 1945 to September 1957, 1994 (peak discharge only, published in WRD AK 95-1), and May 2001 to current year. Records prior to 1945 furnished by U.S. Forest Service.

REVISED RECORDS.-- WSP 1372: 1921-22 and 1928-36.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is sea level, from topographic map. Prior to April 1947, staff gages or water-stage recorders at several sites within 1,700 ft of present site at various datums. April 1947 to September 1957 at site about 200 ft upstream at different datum.

REMARKS.-- No estimated daily discharges.Records good. Minor regulation above station by Sitka Public Utilities hydroelectric plant during periods 1920-23 and 1937-42. In 1959, Blue Lake Dam, 1.6 mi upstream, was completed. The area of the lake is 1225 acres. The dam is concrete with a spillway elevation of 342.0 ft above sea level. In 1960, the Blue Lake Hydro plant, located 400 ft downstream from gage, was put into operation. Water is taken from Blue Lake and piped via a penstock to Blue Lake hydro, through 2-3,000 kw turbines and discharged back into Sawmill Creek just below high tide level. This penstock also provides water for the City of Sitka and for the filter plant for the Sitka Sawmill. In the years following, Campground Hydro, a smaller generation plant was constructed about 1,000 ft below Blue Lake Dam. It also has a penstock from Blue Lake and discharges directly into Sawmill Creek. A fish bypass valve has been installed at Campground Hydro that automatically releases 50 ft^3/s to the tailrace anytime the hydro plant is shut down. Another small generator was installed just above the Sawmill Filter Plant diversion from Blue Lake Hydro penstock with the capability of bypassing the filter plant and discharging back into Sawmill Creek above the gage site. Water that went to the filter plant was piped to the sawmill and eventually discharged directly into Silver Bay. The sawmill has since closed and water is now supplied to Sawmill Cove Industrial Park. Flow is constantly regulated except when Blue Lake is spilling.

EXTREMES OUTSIDE PERIOD OF RECORD.-- It was reported that in October 1972, a storm produced a peak elevation at Blue Lake of 353.0 ft or 11.0 ft of spill at the spillway. Extending the spillway rating, this flood was estimated to be 17,000 ft^3/s. It was reported to have been the largest since 1921.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	81	67	78	70	65	58	79	49	70	298	1210
2	1240	93	67	77	71	96	58	76	49	177	296	1180
3	811	101	67	79	71	96	52	69	49	289	293	843
4	397	86	67	78	72	74	58	65	54	290	292	526
5	211	79	68	76	71	67	58	63	55	293	291	362
6	262	75	68	94	70	64	58	63	51	290	291	286
7	308	74	73	93	68	63	58	62	53	288	309	279
8	296	82	80	99	68	62	58	62	50	288	575	285
9	328	94	77	85	71	61	58	54	53	287	1010	311
10	568	85	91	84	85	61	59	60	64	288	1270	344
11	642	79	81	78	94	61	59	63	55	288	950	427
12	1460	75	91	76	145	60	59	62	52	287	2280	466
13	1120	73	78	75	91	60	62	66	50	291	4760	382
14	606	74	75	75	125	60	62	60	50	304	2080	302
15	345	78	72	86	147	59	62	57	49	292	1210	276
16	458	81	71	92	113	59	62	61	48	283	697	270
17	800	80	70	82	85	59	62	60	48	291	467	316
18	2720	75	70	107	78	58	63	56	47	292	347	640
19	2070	72	69	118	73	58	64	61	47	291	296	1270
20	969	75	69	90	71	58	87	64	47	290	280	1270
21	498	75	68	80	68	58	89	62	47	291	1180	1310
22	305	93	69	76	65	58	75	58	47	293	1540	1110
23	184	83	81	74	63	58	69	57	47	294	1850	769
24	138	76	145	74	62	59	65	54	47	300	1260	587
25	96	73	106	73	62	59	64	56	59	302	894	437
26	84	70	100	71	62	60	64	56	69	301	764	341
27	76	69	92	71	64	61	63	52	70	313	744	466
28	83	68	89	71	63	61	64	56	70	344	1130	521
29	90	68	89	71	---	60	69	54	70	329	1170	524
30	82	68	83	72	---	59	74	52	70	308	844	337
31	76	---	82	72	---	59	---	49	---	301	996	---
TOTAL	18823	2355	2475	2527	2248	1953	1913	1869	1616	8845	30664	17647
MEAN	607.2	78.50	79.84	81.52	80.29	63.00	63.77	60.29	53.87	285.3	989.2	588.2
MAX	2720	101	145	118	147	96	89	79	70	344	4760	1310
MIN	76	68	67	71	62	58	52	49	47	70	280	270
AC-FT	37340	4670	4910	5010	4460	3870	3790	3710	3210	17540	60820	35000
CFSM	15.6	2.01	2.05	2.09	2.06	1.62	1.64	1.55	1.38	7.32	25.4	15.1
IN.	17.95	2.25	2.36	2.41	2.14	1.86	1.82	1.78	1.54	8.44	29.25	16.83

15088000 SAWMILL CREEK NEAR SITKA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2002, BY WATER YEAR (WY)#

MEAN	737.8	481.3	264.3	177.0	169.1	129.3	206.8	549.9	725.4	675.6	681.3	752.8
MAX	1204	998	818	500	644	365	663	861	1179	976	1235	1287
(WY)	1938	1936	1931	1942	1935	1947	1936	1936	1936	1935	1939	1947
MIN	354	78.5	50.1	29.9	33.1	24.8	61.5	60.3	53.9	165	291	359
(WY)	1923	2002	1951	1956	1951	1922	1948	2002	2002	2001	2001	1941

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1920 - 2002#	
ANNUAL TOTAL	92935			
ANNUAL MEAN	254.6		469.8	
HIGHEST ANNUAL MEAN			715	1936
LOWEST ANNUAL MEAN			255	2002
HIGHEST DAILY MEAN	4760	Aug 13	5500	Oct 22 1937
LOWEST DAILY MEAN	a47	Jun 18	11	Mar 30 1922
ANNUAL SEVEN-DAY MINIMUM	47	Jun 18	12	Mar 25 1922
MAXIMUM PEAK FLOW	7280	Aug 12	b10700	Nov 19 1993
MAXIMUM PEAK STAGE	18.26	Aug 12	c	
INSTANTANEOUS LOW FLOW	44	Apr 3	c	
ANNUAL RUNOFF (AC-FT)	184300		340400	
ANNUAL RUNOFF (CFSM)	6.53		12.0	
ANNUAL RUNOFF (INCHES)	88.65		163.68	
10 PERCENT EXCEEDS	664		938	
50 PERCENT EXCEEDS	76		367	
90 PERCENT EXCEEDS	58		66	

\# See Period of Record; partial years used in monthly statistics
a Jun. 18-24
b On the basis of a slope-area computation of peak flow below Campground Hydro and adding diversion values at the time of peak between Campground Hydro and gage; peak flow below Blue Lake Tailrace was computed to be 11,100 ft^3/s
c Undetermined

15088200 SILVER BAY TRIBUTARY AT BEAR COVE NEAR SITKA

LOCATION.--Lat 57°01′09″, long 135°09′45″, in SW$^1/_4$ NW$^1/_4$ NE$^1/_4$ sec. 13, T. 56 S., R. 64 E. (Sitka A-4 quad), Hydrologic Unit 19010203, in Tongass National Forest, on Baranof Island, on right bank 350 ft upstream from mouth, and 6.5 mi southwest of Sitka.

DRAINAGE AREA.--0.38 mi^2.

PERIOD OF RECORD.-- October 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 110 ft above sea level, from topographic map.

REMARKS.-- Records fair except for the period August 12 to September 30 and estimated discharges which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	8.5	0.07	2.5	0.44	1.00	0.37	12	4.5	1.1	1.2	3.9
2	15	6.5	0.04	3.5	0.41	7.5	0.42	5.2	4.9	0.90	1.0	3.3
3	2.5	10	0.07	6.5	0.40	4.7	0.50	3.4	4.8	0.93	0.57	1.2
4	0.87	2.5	0.12	2.3	0.66	1.4	0.46	1.8	5.6	2.6	0.50	0.64
5	0.60	1.7	0.13	3.1	0.52	0.78	0.35	1.6	6.3	1.8	0.44	0.54
6	9.3	1.3	0.14	23	0.37	0.54	0.37	1.6	2.9	1.2	0.35	0.32
7	2.0	1.7	7.3	7.4	0.32	0.39	0.47	1.8	5.4	1.2	2.7	1.3
8	4.1	6.1	4.5	6.4	0.30	0.32	0.65	1.9	3.6	1.1	14	1.2
9	6.7	7.8	2.8	4.4	1.1	0.30	0.90	2.3	6.8	0.90	12	2.0
10	14	5.3	4.6	3.2	5.0	0.31	1.0	3.8	7.3	1.4	13	3.2
11	11	2.2	1.6	1.5	8.6	0.29	1.1	4.9	3.3	1.2	5.3	4.0
12	21	1.4	4.2	1.1	18	0.29	1.2	6.0	3.0	0.76	51	2.1
13	6.5	1.4	1.1	0.84	2.2	0.27	1.5	11	3.7	4.7	15	0.83
14	2.6	4.0	0.58	0.73	11	0.27	1.6	4.7	4.2	12	3.1	0.72
15	6.0	3.1	0.39	2.3	26	0.25	1.5	3.8	3.1	1.9	1.4	1.7
16	16	2.6	0.33	2.3	4.8	0.24	2.0	14	2.0	1.6	1.2	2.2
17	25	2.3	0.31	2.6	1.6	0.24	2.6	7.4	2.2	2.9	1.00	3.5
18	27	2.0	0.30	6.5	1.1	0.24	2.5	6.9	2.1	1.8	0.88	4.6
19	17	3.3	0.29	6.5	0.82	0.21	2.6	17	3.1	1.3	1.0	7.2
20	4.2	6.0	0.28	1.9	0.65	0.22	6.9	18	2.1	0.93	0.91	3.4
21	5.7	4.4	0.27	0.83	0.56	0.24	6.2	11	1.7	1.4	14	9.6
22	2.9	5.9	0.35	e0.71	0.44	0.28	2.7	7.3	2.0	2.2	5.7	2.3
23	2.9	2.3	8.6	0.54	0.39	0.47	2.6	5.3	2.5	2.2	5.8	3.8
24	4.6	1.3	36	0.46	0.36	0.52	1.8	6.2	2.8	4.0	3.0	2.9
25	2.4	0.68	10	e0.45	0.35	0.50	2.2	9.2	2.0	9.6	2.7	2.3
26	1.7	0.36	8.4	e0.43	0.41	0.93	2.7	8.0	1.3	4.6	3.3	1.8
27	1.6	0.32	5.8	e0.42	0.86	0.86	2.3	6.8	1.3	8.4	2.9	10
28	10	0.25	7.1	e0.42	0.76	0.51	4.3	11	1.9	17	9.8	7.9
29	6.5	0.17	6.2	0.46	---	0.47	7.5	8.7	1.4	4.1	2.5	2.0
30	2.4	0.13	4.5	0.54	---	0.50	9.7	5.6	1.4	1.8	2.4	0.84
31	1.6	---	5.1	0.52	---	0.42	---	4.2	---	1.2	6.0	---
TOTAL	236.97	95.51	121.47	94.35	88.42	25.46	70.99	212.4	99.2	98.72	184.65	91.29
MEAN	7.644	3.184	3.918	3.044	3.158	0.821	2.366	6.852	3.307	3.185	5.956	3.043
MAX	27	10	36	23	26	7.5	9.7	18	7.3	17	51	10
MIN	0.60	0.13	0.04	0.42	0.30	0.21	0.35	1.6	1.3	0.76	0.35	0.32
MED	4.6	2.3	1.1	1.9	0.65	0.39	1.7	6.0	3.0	1.8	2.7	2.2
AC-FT	470	189	241	187	175	50	141	421	197	196	366	181
CFSM	20.1	8.38	10.3	8.01	8.31	2.16	6.23	18.0	8.70	8.38	15.7	8.01
IN.	23.20	9.35	11.89	9.24	8.66	2.49	6.95	20.79	9.71	9.66	18.08	8.94

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.835	3.531	4.727	2.566	2.353	1.985	2.384	5.905	4.708	3.347	3.472	5.077
MAX	7.64	4.56	7.73	3.04	3.16	2.78	2.66	6.85	6.20	4.93	5.96	6.36
(WY)	2002	2000	2000	2002	2002	2001	2001	2002	2000	2000	2002	2000
MIN	5.34	2.85	2.54	1.68	1.12	0.82	2.12	5.14	3.31	1.93	0.46	3.04
(WY)	2001	2001	2001	2000	2000	2002	2000	2001	2002	2001	2001	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	1337.70		1419.43			
ANNUAL MEAN	3.665		3.889		3.919	
HIGHEST ANNUAL MEAN					4.54	2000
LOWEST ANNUAL MEAN					3.32	2001
HIGHEST DAILY MEAN	36	Dec 24	51	Aug 12	51	Aug 12 2002
LOWEST DAILY MEAN	0.04	Dec 2	0.04	Dec 2	0.04	Dec 2 2001
ANNUAL SEVEN-DAY MINIMUM	0.08	Aug 14	0.10	Nov 30	0.08	Aug 14 2001
MAXIMUM PEAK FLOW			264	Aug 12	264	Aug 12 2002
MAXIMUM PEAK STAGE			19.68	Aug 12	19.68	Aug 12 2002
INSTANTANEOUS LOW FLOW			a0.00	Dec 2	a0.00	Dec 2 2001
ANNUAL RUNOFF (AC-FT)	2650		2820		2840	
ANNUAL RUNOFF (CFSM)	9.64		10.2		10.3	
ANNUAL RUNOFF (INCHES)	130.95		138.95		140.11	
10 PERCENT EXCEEDS	7.8		9.4		8.5	
50 PERCENT EXCEEDS	2.4		2.2		2.4	
90 PERCENT EXCEEDS	0.29		0.35		0.42	

a Dec. 2 and Dec. 3, 2001
e Estimated

15090000 GREEN LAKE NEAR SITKA

LOCATION.--Lat 56°59’14”, long 135°06’37”, in $SW^1/_4$ $NE^1/_4$ sec. 29, T. 56 S., R. 65 E. (Port Alexander D-4 quad), Hydrologic Unit 19010203, Greater Sitka Borough, on Baranof Island, in Tongass National Forest, 0.4 mi upstream from mouth at Silver Bay, and 9.4 mi southeast of Sitka.

DRAINAGE AREA.--28.8 mi^2.

PERIOD OF RECORD.--September 1915 to September 1925 (published as "Green Lake Outlet"); monthly discharges only published in WSP 1372. October 1983 to current year (month end reservoir contents and monthly discharges).

REVISED RECORDS.--WSP 1372: 1916, 1917, 1922 (monthly discharge). WDR AK-84-1: Drainage area. WDR AK-86-1: 1984, 1985 (month-end reservoir contents, change in month-end and yearly contents, adjusted mean monthly discharges, and extremes). WRD AK-00-01: 1998-1999 (M m).

GAGE.--Staff gage on upstream face of dam. Datum of gage is at mean low water, which is about 5 ft below sea level. Totalizing MWH meters are on the two turbines in Green Lake powerhouse. September 1915 to September 1925, recording gage at site of present day dam, elevation of gage was 220 ft above sea level, by barometer; prior to December 27, 1916 at datum 1 ft higher. Water years 1983-88, nonrecording remote lake-level indicator at Blue Lake powerhouse (6 mi northwest of gage).

REMARKS.--Reservoir is formed by concrete arch dam located at the outlet of Green Lake, construction began in 1978 and was completed in 1982. Total and usable capacity below spillway crest elevation of 395 ft is 88,000 and 75,000 acre-ft, respectively. Reservoir is used for power. Discharge released through the turbines is computed from relation between discharge, head, and power generation; release flow empties directly into Silver Bay and is not returned to stream. Spill is computed from a theoretical relation between discharge and stage above the crest of the 100 ft wide spillway. Turbine and spillway ratings and reservoir capacity table furnished by City and Borough of Sitka in 1983. Corrected reservoir capacity table furnished in April 1987.

COOPERATION.--Daily reservoir elevations and MWH power generation provided by City and Borough of Sitka.

AVERAGE DISCHARGE.--28 years (water years, 1916-25, 1985-2002), 315 ft^3/s, 148.5 in/yr, 228,200 acre-ft/yr. Mean discharge for water years 1985-99 adjusted for change in contents of Green Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 93,780 acre-ft, September 22-23, 1994, elevation, 400.5 ft; minimum contents observed, 23,170 acre-ft, June 1, 1996, elevation, 307.6 ft; Maximum daily discharge, 5,020 ft^3/s, September 22-23, 1994; no flow released, February 5-8, 1987 and November 27-29, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed,90,630 acre-ft, October 18, elevation 397.5 ft; minimum contents observed, 37,420 acre-ft, May 12-15, elevation 333.2 ft; Maximum daily discharge (not adjusted for storage) 1525 ft^3/s, October 18; minimum daily discharge, 5.3 ft^3/s, August 13.

MONTH END RESERVOIR ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS, IN ACRE FEET
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ELEVATION	CONTENTS	CHANGE IN CONTENTS
Sep 30	397.7	90,840	
Oct 31	394.9	87,910	-2,930
Nov 30	390.5	83,730	-4,210
Dec 31	383.2	76,880	-6,850
Jan 31	376.4	70,760	-6,120
Feb 28	368.4	63,890	-6,870
Mar 31	352.4	50,920	-12,970
Apr 30	337.3	40,000	-10,920
May 31	343.8	44,220	+4,220
Jun 30	362.2	58,760	+14,540
Jul 31	370.7	65,850	+7,090
Aug 31	389.4	82,680	+16,830
Sep 30	395.6	88,630	+5,950
		CAL YR 2001	-4,690
		WTR YR 2002	-2,240

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
MEAN VALUES

MONTH	RELEASE	SPILL	TOTAL	ADJUSTED
OCT	145	465	610	563
NOV	198	9	207	136
DEC	223	0	223	112
JAN	219	0	219	119
FEB	247	0	247	123
MAR	272	0	272	61
APR	280	0	280	96
MAY	266	0	266	335
JUN	262	0	262	506
JUL	244	0	244	359
AUG	223	0	223	497
SEP	202	111	313	413
CAL YR 2001	168	180.1	349	342
WTR YR 2002	232	49.4	281	278

15101490 GREENS CREEK AT GREENS CREEK MINE NEAR JUNEAU

LOCATION.--Lat 58°05′00″, long 134°37′54″, in NW¼ SE¼ sec. 4, T. 44 S., R. 66 E. (Juneau A-2 quad), Hydrologic Unit 19010204, on Admiralty Island, in Admiralty Island National Monument, Tongass National Forest, on right bank, 100 ft upstream from mine portal, 0.3 mi downstream from Big Sore Creek, 7.0 mi upstream from mouth at Hawk Inlet, and 19 mi southwest of Juneau.

DRAINAGE AREA.--8.62 mi^2.

PERIOD OF RECORD.--August 1989 to current year.

REVISED RECORD.--WRD AK-99-1, 1990-1994(M), 1996-1998(M).

GAGE.--Water-stage recorder. Datum of gage is 890.16 ft above sea level (levels by Greens Creek Mining Company). Prior to February 16, 1999, recording gage at site 30 ft upstream at datum 9.84 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Greens Creek Mining Company pumps water from gage pool for use in mill. Diversion flow is recorded on totalizing meters in gage house. Pump records are available from Greens Creek Mining Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	24	e12	14	5.2	2.0	1.5	29	98	63	32	85
2	92	25	e13	13	5.3	8.7	1.4	23	102	88	30	73
3	70	46	e13	12	4.8	13	1.2	17	99	81	28	55
4	48	26	e12	11	4.7	6.6	1.2	15	109	86	26	44
5	39	22	12	11	4.5	5.4	1.3	14	107	78	25	37
6	44	21	11	24	4.5	e4.8	1.3	13	96	72	25	35
7	52	20	11	21	e4.3	e4.1	1.3	13	91	66	59	42
8	57	19	13	19	e3.9	e3.5	1.2	14	95	67	80	46
9	62	22	10	17	4.0	e2.8	1.3	17	104	64	88	40
10	53	24	9.4	19	4.3	2.5	1.4	25	102	60	71	45
11	66	21	9.0	15	3.4	2.3	1.2	27	90	59	59	46
12	107	19	8.7	13	5.7	2.0	1.2	31	83	47	94	37
13	81	18	8.4	12	5.9	e1.9	1.2	73	85	50	88	34
14	58	22	8.4	11	15	1.9	1.2	67	95	74	75	34
15	63	22	8.5	11	11	1.7	1.3	48	104	56	56	37
16	93	19	8.4	11	11	1.6	1.4	68	97	50	42	37
17	78	18	7.6	10	6.3	1.6	1.6	84	93	54	37	46
18	99	18	7.5	9.5	4.7	1.5	1.7	86	89	48	37	91
19	95	18	6.8	9.1	3.9	1.5	1.8	100	83	42	33	86
20	73	22	5.8	8.5	3.4	1.5	4.2	111	81	38	32	76
21	66	23	5.3	e7.8	3.1	1.5	4.4	115	74	51	59	104
22	49	23	5.1	7.2	3.0	1.4	3.1	109	71	51	63	82
23	37	22	8.5	e7.0	e2.9	1.5	2.9	114	81	51	82	71
24	33	19	30	e6.7	e2.7	1.5	2.5	102	87	57	69	62
25	30	e18	23	e6.5	2.4	1.5	3.0	102	98	54	73	58
26	28	e16	20	e6.2	2.2	1.5	3.9	106	91	48	80	53
27	27	e14	22	e5.7	2.2	1.5	5.2	105	80	46	82	73
28	28	e14	21	e6.3	2.1	1.5	11	136	75	46	90	56
29	32	e13	20	6.7	---	1.5	17	134	71	41	90	46
30	25	e13	17	5.8	---	1.6	24	111	62	36	83	40
31	23	---	16	5.3	---	1.5	---	98	---	34	90	---
TOTAL	1819	621	383.4	342.3	136.4	87.4	106.9	2107	2693	1758	1878	1671
MEAN	58.68	20.70	12.37	11.04	4.871	2.819	3.563	67.97	89.77	56.71	60.58	55.70
MAX	111	46	30	24	15	13	24	136	109	88	94	104
MIN	23	13	5.1	5.3	2.1	1.4	1.2	13	62	34	25	34
AC-FT	3610	1230	760	679	271	173	212	4180	5340	3490	3730	3310
CFSM	6.81	2.40	1.43	1.28	0.57	0.33	0.41	7.88	10.4	6.58	7.03	6.46
IN.	7.85	2.68	1.65	1.48	0.59	0.38	0.46	9.09	11.62	7.59	8.10	7.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	61.12	29.72	25.14	14.76	13.17	11.50	28.60	79.36	88.93	56.59	41.95	60.36
MAX	97.9	49.5	65.7	22.3	36.9	27.2	49.6	107	147	90.5	69.7	95.0
(WY)	1999	1994	1990	1991	1992	1992	1994	1992	1992	2000	1991	1991
MIN	34.7	14.6	8.27	5.50	3.43	2.82	3.56	56.4	59.5	31.5	18.7	33.3
(WY)	1994	1991	1997	1997	1999	2002	2002	2001	1998	1998	1994	1995

\# See Period of Record, partial years used in monthly statistics
e Estimated

15101490 GREENS CREEK AT GREENS CREEK MINE NEAR JUNEAU—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002#	
ANNUAL TOTAL	14820.4		13603.4			
ANNUAL MEAN	40.60		37.27		42.82	
HIGHEST ANNUAL MEAN					60.1	1992
LOWEST ANNUAL MEAN					31.8	1998
HIGHEST DAILY MEAN	132	Jun 20	136	May 28	465	Oct 20 1998
LOWEST DAILY MEAN	a3.8	Apr 2	1.2	Apr 3	b1.2	Apr 3 2002
ANNUAL SEVEN-DAY MINIMUM	4.0	Mar 31	1.2	Apr 8	1.2	Apr 8 2002
MAXIMUM PEAK FLOW			152	Sep 21	c710	Oct 20 1998
MAXIMUM PEAK STAGE			2.56	Sep 21	d14.79	Oct 20 1998
INSTANTANEOUS LOW FLOW			f0.98	Mar 20	f0.98	Mar 20 2002
ANNUAL RUNOFF (AC-FT)	29400		26980		31020	
ANNUAL RUNOFF (CFSM)	4.71		4.32		4.97	
ANNUAL RUNOFF (INCHES)	63.96		58.71		67.49	
10 PERCENT EXCEEDS	96		91		91	
50 PERCENT EXCEEDS	26		24		32	
90 PERCENT EXCEEDS	6.5		1.9		6.3	

\# See Period of Record, partial years used in monthly statistics
a Apr. 2-3
b Apr. 3-4, 8, and 11-14, 2002
c From rating curve extended above 140 ft^3/s on basis of slope area measurement of peak flow
d Same site, different datum
f Mar. 20, and Apr. 7-11, 2002

15102200 FAVORITE CREEK NEAR ANGOON

LOCATION.--Lat 57°26′52″, long 134°27′35″, in SE$^1/_4$ NE$^1/_4$ SW$^1/_4$ sec. 14, T. 51 S., R. 68 E. (Sitka B-2 quad), Hydrologic Unit 19010204, in Tongass National Forest, on Admiralty Island, on right bank 1.2 mi upstream from confluence with North Fork Favorite Creek, 2.2 miles from the mouth of Favorite Creek and about 5.7 mi south east of Angoon.

DRAINAGE AREA.--2.52 mi^2

PERIOD OF RECORD.--November 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 370 ft above sea level, from topographic map.

REMARKS.-- Records good, except for discharges above 80 ft^3/s, and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	30	e4.4	8.9	3.0	2.5	1.8	12	41	19	6.2	18
2	18	22	e4.0	8.6	2.9	4.5	1.7	9.4	41	19	5.8	17
3	15	71	3.8	8.8	2.8	8.1	1.7	6.8	43	17	5.4	13
4	12	19	3.7	7.3	7.4	4.1	1.7	5.1	46	14	5.0	11
5	11	14	3.6	13	3.9	e3.3	1.6	4.3	40	13	4.6	9.5
6	12	11	3.4	72	3.2	e3.0	1.6	3.9	31	12	4.4	8.6
7	18	9.1	4.2	28	e2.9	e2.7	1.5	4.0	28	11	6.6	9.2
8	17	26	5.1	17	e5.0	e2.4	1.5	5.0	29	11	14	9.1
9	15	22	3.9	45	e10	e2.3	1.5	5.8	36	13	13	9.6
10	13	20	3.5	30	27	e2.3	1.5	8.7	37	14	9.8	9.9
11	19	13	3.3	16	7.1	e2.3	1.5	13	30	14	8.4	9.7
12	23	9.5	3.4	12	26	2.3	1.6	20	25	12	14	8.9
13	14	16	3.1	9.9	8.0	2.2	1.9	35	24	11	15	8.2
14	11	57	2.9	8.5	7.8	2.1	2.4	22	27	10	12	7.5
15	22	26	2.7	8.0	38	e1.9	2.5	17	32	9.7	10	8.3
16	18	16	e2.6	7.6	23	e1.8	2.2	27	31	10	8.7	14
17	14	12	e2.4	6.8	8.1	e1.8	2.4	26	28	11	7.7	11
18	13	11	e2.3	8.2	5.8	1.8	2.6	22	27	10	6.8	16
19	13	12	2.2	7.1	4.7	1.8	3.2	24	22	9.6	6.0	13
20	12	14	2.1	6.2	4.1	1.8	5.3	32	20	9.2	5.4	11
21	13	16	2.1	5.0	3.7	1.8	5.5	38	18	11	6.0	39
22	13	17	2.2	e4.6	e3.5	1.7	4.4	40	17	12	7.2	18
23	11	14	46	4.3	e3.4	1.7	4.1	42	21	12	8.7	15
24	13	11	123	4.2	e3.1	1.7	4.1	36	31	15	12	12
25	10	9.2	35	e4.0	e2.9	2.6	3.9	34	45	13	18	11
26	8.9	7.7	18	e3.8	2.7	3.9	4.2	37	33	11	33	11
27	9.3	6.6	31	e3.6	2.7	3.0	4.1	39	26	9.5	33	e14
28	49	5.8	21	e3.4	2.5	2.4	6.0	87	23	8.9	29	e10
29	31	5.1	17	3.2	---	2.1	8.5	107	20	8.1	21	e7.0
30	13	4.7	12	3.2	---	2.0	11	66	19	7.4	16	e5.0
31	11	---	9.8	3.2	---	1.9	---	45	---	6.7	26	---
TOTAL	494.2	527.7	383.7	371.4	225.2	79.8	97.5	874.0	891	364.1	378.7	364.5
MEAN	15.94	17.59	12.38	11.98	8.043	2.574	3.250	28.19	29.70	11.75	12.22	12.15
MAX	49	71	123	72	38	8.1	11	107	46	19	33	39
MIN	8.9	4.7	2.1	3.2	2.5	1.7	1.5	3.9	17	6.7	4.4	5.0
MED	13	14	3.7	7.6	4.0	2.3	2.4	24	28	11	8.7	11
AC-FT	980	1050	761	737	447	158	193	1730	1770	722	751	723
CFSM	6.33	6.98	4.91	4.75	3.19	1.02	1.29	11.2	11.8	4.66	4.85	4.82
IN.	7.30	7.79	5.66	5.48	3.32	1.18	1.44	12.90	13.15	5.37	5.59	5.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.94	17.59	14.22	17.23	9.395	3.974	5.860	23.66	30.02	14.89	9.815	14.05
MAX	15.9	17.6	16.1	22.5	10.7	5.37	8.47	28.2	30.3	18.0	12.2	16.0
(WY)	2002	2002	2001	2001	2001	2001	2001	2002	2001	2001	2002	2001
MIN	15.9	17.6	12.4	12.0	8.04	2.57	3.25	19.1	29.7	11.7	7.41	12.2
(WY)	2002	2002	2002	2002	2002	2002	2002	2001	2002	2002	2001	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002#	
ANNUAL TOTAL	5594.3		5051.8			
ANNUAL MEAN	15.33		13.84		13.84	
HIGHEST ANNUAL MEAN					13.8	2002
LOWEST ANNUAL MEAN					13.8	2002
HIGHEST DAILY MEAN	123	Dec 24	123	Dec 24	123	Dec 24 2001
LOWEST DAILY MEAN	2.1	Dec 20	a1.5	Apr 7	a1.5	Apr 7 2002
ANNUAL SEVEN-DAY MINIMUM	2.3	Dec 16	1.5	Apr 5	1.5	Apr 5 2002
MAXIMUM PEAK FLOW			232	Dec 24	244	Dec 1 2000
MAXIMUM PEAK STAGE			11.14	Dec 24	11.16	Dec 1 2000
INSTANTANEOUS LOW FLOW			b1.4	Apr 4	b1.4	Apr 4 2002
ANNUAL RUNOFF (AC-FT)	11100		10020		10030	
ANNUAL RUNOFF (CFSM)	6.08		5.49		5.49	
ANNUAL RUNOFF (INCHES)	82.58		74.57		74.62	
10 PERCENT EXCEEDS	30		31		31	
50 PERCENT EXCEEDS	12		9.8		9.8	
90 PERCENT EXCEEDS	3.3		2.3		2.3	

\# See Period of Record, partial year used in monthly statistics
a Apr. 7-11
b Apr. 4 and 9, **2002** but may have been lower during period of ice affected record
e Estimated

15102200 FAVORITE CREEK NEAR ANGOON—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 2002 to June 2002.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	Medium code	Sample type	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	SAMPLER TYPE (CODE) (84164)
FEB											
19...	1110	9	9	10.02	4.6	8010	11.7	3.0	-2.0	.0	8010
MAR											
20...	1430	9	9	9.80	1.8	8010	12.0	3.8	2.0	.0	8010
JUN											
03...	1300	9	9	10.56	41	8010	20.7	1.0	--	4.5	8010

15106920 KADASHAN RIVER ABOVE HOOK CREEK NEAR TENAKEE

LOCATION.--Lat 57°39′46″, long 135°11′06″, in NW$^1/_4$ SE$^1/_4$ sec. 34, T. 48 S., R. 63 E. (Sitka C-4 quad), Greater Sitka Borough, Hydrologic Unit 19010203, on Chichagof Island, in Tongass National Forest, on right bank 0.6 mi upstream from Hook Creek, 3.5 mi upstream from mouth at Kadashan Bay, and 9 mi south of Tenakee.

DRAINAGE AREA.--10.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1968 to September 1978, October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 100 ft above sea level, from topographic map. Prior to October 24, 1969, at site 90 ft downstream at different datum; October 24, 1969 to September 30, 1978, at site 75 ft downstream at datum 1.89 ft higher.

REMARKS.--Records fair, except for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*)

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct 12	0430	634	3.82	Aug 12	1645	*879	*4.33
Oct 17	1600	517	3.63				

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	106	e20	29	15	21	12	83	125	19	13	68
2	125	134	e19	26	14	111	12	61	110	29	12	75
3	64	246	e23	25	13	82	12	41	85	25	11	55
4	48	97	e23	23	19	33	11	31	114	23	10	40
5	41	83	e32	28	17	e20	11	27	78	24	9.6	36
6	58	61	45	161	14	e17	11	25	62	22	10	32
7	58	49	52	85	13	e15	11	26	68	18	90	84
8	59	81	121	67	32	e13	11	32	61	17	102	75
9	72	142	39	68	67	e12	11	38	87	16	56	66
10	96	94	40	67	163	e11	10	60	75	18	35	66
11	117	70	36	43	58	e10	11	102	53	18	26	60
12	395	48	36	34	173	e9.7	11	95	45	15	239	42
13	114	44	27	31	45	e9.5	12	120	48	17	91	35
14	78	91	22	30	115	e9.0	14	84	54	20	54	32
15	113	83	22	46	149	e8.6	16	76	53	15	38	42
16	185	71	e18	50	115	e8.4	16	107	45	15	32	44
17	228	59	e14	32	52	e8.2	16	95	41	16	30	66
18	212	48	e15	45	40	e8.0	16	90	37	15	26	145
19	175	45	e15	46	34	e7.8	21	113	32	18	24	80
20	103	52	e15	33	28	e7.7	49	133	29	16	26	58
21	108	52	15	23	23	e8.3	52	123	25	22	216	186
22	82	71	18	e19	19	e9.0	34	122	24	27	77	64
23	63	60	60	e30	e17	e10	28	112	27	25	109	51
24	90	41	292	e23	e16	11	28	97	33	43	56	43
25	70	32	116	17	e16	12	29	92	40	30	50	43
26	50	26	63	e14	23	19	30	104	27	22	75	40
27	46	e25	51	e13	20	20	29	91	26	39	112	53
28	84	e22	53	e17	18	17	39	176	22	29	192	44
29	127	e21	55	e16	---	15	54	135	20	21	116	38
30	60	e20	41	e15	---	14	65	100	19	17	61	32
31	46	---	33	e15	---	13	---	84	---	14	113	---
TOTAL	3267	2074	1431	1171	1328	570.2	682	2675	1565	665	2111.6	1795
MEAN	105.4	69.13	46.16	37.77	47.43	18.39	22.73	86.29	52.17	21.45	68.12	59.83
MAX	395	246	292	161	173	111	65	176	125	43	239	186
MIN	41	20	14	13	13	7.7	10	25	19	14	9.6	32
AC-FT	6480	4110	2840	2320	2630	1130	1350	5310	3100	1320	4190	3560
CFSM	10.3	6.78	4.53	3.70	4.65	1.80	2.23	8.46	5.11	2.10	6.68	5.87
IN.	11.91	7.56	5.22	4.27	4.84	2.08	2.49	9.76	5.71	2.43	7.70	6.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	117.4	77.05	63.74	49.67	48.57	44.14	66.52	101.6	66.41	30.68	33.65	74.96
MAX	234	152	147	147	118	129	118	182	151	60.2	79.0	141
(WY)	1975	1975	2000	1985	1985	1994	1994	1972	1972	1970	1983	1981
MIN	50.6	17.7	8.05	6.15	5.95	9.21	22.7	42.0	19.8	6.41	9.44	17.5
(WY)	1970	1974	1978	1969	1969	1974	2002	1981	1998	1989	1977	1986

See Period of Record; partial years used in monthly summary statistics
e Estimated

15106920 KADASHAN RIVER ABOVE HOOK CREEK NEAR TENAKEE—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002#	
ANNUAL TOTAL	21838.6		19334.8			
ANNUAL MEAN	59.83		52.97		64.46	
HIGHEST ANNUAL MEAN					80.8	1992
LOWEST ANNUAL MEAN					44.1	1978
HIGHEST DAILY MEAN	723	Sep 13	395	Oct 12	1010	Oct 19 1998
LOWEST DAILY MEAN	8.5	Aug 17	7.7	Mar 20	a3.2	Jul 28 1989
ANNUAL SEVEN-DAY MINIMUM	8.9	Aug 12	8.1	Mar 15	4.2	Jan 13 1974
MAXIMUM PEAK FLOW			879	Aug 12	b1970	Oct 8 1990
MAXIMUM PEAK STAGE			4.33	Aug 12	5.83	Oct 8 1990
INSTANTANEOUS LOW FLOW			c		3.2	Jul 28 1989
ANNUAL RUNOFF (AC-FT)	43320		38350		46700	
ANNUAL RUNOFF (CFSM)	5.87		5.19		6.32	
ANNUAL RUNOFF (INCHES)	79.65		70.52		85.86	
10 PERCENT EXCEEDS	112		113		139	
50 PERCENT EXCEEDS	46		38		43	
90 PERCENT EXCEEDS	15		13		12	

\# See Period of Record; partial years used in monthly summary statistics
a Jul. 28 to Jul. 29, 1989
b From rating curve extended above 330 ft^3/s on basis of area-velocity study at gage height 4.8 ft and shape of previous rating
c See lowest daily mean

15106920 KADASHAN RIVER ABOVE HOOK CREEK NEAR TENAKEE—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-72, 1974-77, 1981-1985, and 1987 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1967 to September 1978, December 1981 to December 1984, March 1987 to March 1988, and September 1988 to current year.

INSTRUMENTATION.--Digital water-temperature recorder, November 1967 to December 1984, set for 1-hour punch interval. Electronic water-temperature recorder since March 13, 1987, set for 2-hour recording interval. Electronic water-temperature recorder with 15-minute recording interval since July 11, 1996.

REMARKS.--Records represent water temperature at the sensor within 0.5 °C. Temperature at the sensor was compared with the stream average by cross sections on February 21, and July 15. No variation was found in the temperature cross sections. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 16.5°C, July 15, 1993; minimum, 0.0°C, on many days during most winters.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 12.0°C, July 24, August 1-2, and 4-5; minimum, 0.0°C, on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)
FEB							
21...	1045	23.0	3.00	1.50	22	1.0	-2.0
21...	1046	23.0	6.00	1.50	22	1.0	-2.0
21...	1047	23.0	9.00	1.50	22	1.0	-2.0
21...	1048	23.0	12.0	1.50	22	1.0	-2.0
21...	1049	23.0	15.0	1.50	22	1.0	-2.0
21...	1050	23.0	18.0	1.50	22	1.0	-2.0
21...	1051	23.0	21.0	1.50	22	1.0	-2.0
JUL							
15...	1025	26.0	7.00	1.38	16	9.0	17.5
15...	1026	26.0	11.0	1.38	16	9.0	17.5
15...	1027	26.0	15.0	1.38	16	9.0	17.5
15...	1028	26.0	19.0	1.38	16	9.0	17.5
15...	1029	26.0	23.0	1.38	16	9.0	17.5
15...	1030	26.0	27.0	1.38	16	9.0	17.5

TEMPERATURE WATER, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	7.5	7.5	4.0	3.5	3.5	0.0	0.0	0.0	2.0	1.5	1.5
2	8.0	7.5	7.5	4.0	3.5	3.5	0.0	0.0	0.0	2.0	2.0	2.0
3	8.0	7.5	7.5	4.0	3.0	3.5	0.0	0.0	0.0	2.0	2.0	2.0
4	7.5	7.0	7.5	3.5	3.0	3.0	0.0	0.0	0.0	2.0	1.5	2.0
5	7.0	6.5	7.0	3.5	3.0	3.0	0.0	0.0	0.0	2.0	2.0	2.0
6	7.5	7.0	7.0	3.5	3.0	3.0	0.0	0.0	0.0	2.0	0.5	1.0
7	7.0	6.5	7.0	3.0	3.0	3.0	0.0	0.0	0.0	2.0	1.0	1.5
8	7.0	6.5	7.0	3.0	3.0	3.0	0.0	0.0	0.0	2.0	1.5	1.5
9	7.0	6.5	7.0	3.5	2.5	3.0	0.5	0.0	0.0	2.0	1.5	2.0
10	7.0	6.5	7.0	3.5	3.0	3.5	1.0	0.5	0.5	2.0	1.5	1.5
11	6.5	5.5	6.0	3.5	3.0	3.0	1.0	0.5	1.0	2.0	2.0	2.0
12	6.0	5.5	5.5	3.0	3.0	3.0	1.0	1.0	1.0	2.0	2.0	2.0
13	6.0	5.5	5.5	3.0	3.0	3.0	1.0	0.5	1.0	2.0	1.5	2.0
14	6.0	5.0	5.5	3.0	3.0	3.0	0.5	0.0	0.5	2.0	2.0	2.0
15	5.5	5.0	5.0	3.5	3.0	3.0	0.0	0.0	0.0	2.5	1.5	2.0
16	5.5	5.0	5.0	3.5	3.0	3.5	0.0	0.0	0.0	2.0	1.5	1.5
17	5.5	5.0	5.5	3.5	3.0	3.5	0.0	0.0	0.0	2.0	1.5	2.0
18	6.0	5.5	6.0	3.5	3.5	3.5	0.0	0.0	0.0	2.0	1.5	2.0
19	5.5	5.0	5.5	4.0	3.0	3.5	0.0	0.0	0.0	2.0	1.5	1.5
20	5.0	4.5	5.0	4.0	3.5	3.5	0.0	0.0	0.0	1.5	1.0	1.5
21	5.5	5.0	5.0	4.0	4.0	4.0	1.0	0.0	0.5	1.0	0.0	0.5
22	5.5	4.5	5.0	4.0	3.5	4.0	1.0	0.5	1.0	0.0	0.0	0.0
23	4.5	4.5	4.5	3.5	3.0	3.5	1.0	0.0	0.5	0.0	0.0	0.0
24	4.5	4.0	4.0	3.5	2.5	3.0	0.0	0.0	0.0	0.5	0.0	0.0
25	4.0	3.5	4.0	2.5	0.5	1.5	1.0	0.0	0.5	0.0	0.0	0.0
26	3.5	3.0	3.5	0.5	0.0	0.5	1.5	1.0	1.0	0.0	0.0	0.0
27	4.0	3.0	3.5	0.0	0.0	0.0	1.5	1.5	1.5	0.0	0.0	0.0
28	3.5	3.0	3.5	0.0	0.0	0.0	1.5	1.5	1.5	0.0	0.0	0.0
29	3.5	3.0	3.5	0.0	0.0	0.0	1.5	1.5	1.5	0.0	0.0	0.0
30	4.0	3.5	3.5	0.0	0.0	0.0	2.0	1.5	1.5	0.0	0.0	0.0
31	3.5	3.0	3.5	---	---	---	1.5	1.0	1.5	1.0	0.0	0.5
MONTH	8.0	3.0	5.5	4.0	0.0	2.7	2.0	0.0	0.5	2.5	0.0	1.2

15106920 KADASHAN RIVER ABOVE HOOK CREEK NEAR TENAKEE—Continued

TEMPERATURE WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	1.0	1.0	1.5	1.0	1.0	1.0	0.0	0.5	2.5	1.5	2.0
2	1.0	0.5	1.0	1.0	0.0	0.5	1.0	0.0	0.5	3.0	1.0	2.0
3	1.0	1.0	1.0	1.0	0.0	0.5	0.5	0.0	0.0	2.5	1.0	2.0
4	1.0	0.5	1.0	0.5	0.0	0.5	0.5	0.0	0.0	3.0	1.0	2.0
5	1.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0	0.5	3.0	1.0	2.0
6	1.0	0.5	1.0	0.0	0.0	0.0	1.0	0.0	0.5	3.5	1.0	2.0
7	0.5	0.0	0.5	0.0	0.0	0.0	1.0	0.0	0.5	3.0	2.0	2.5
8	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	4.0	1.5	3.0
9	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	3.0	2.0	2.5
10	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5	1.0	3.0	2.0	2.5
11	0.5	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0	2.5	2.0	2.0
12	0.5	0.0	0.0	0.0	0.0	0.0	2.0	1.0	1.5	3.0	1.5	2.0
13	1.0	0.5	0.5	0.0	0.0	0.0	2.0	1.0	1.5	3.0	2.0	2.5
14	1.0	0.5	0.5	0.0	0.0	0.0	2.5	1.0	1.5	3.5	2.0	2.5
15	1.0	0.5	0.5	0.0	0.0	0.0	2.5	1.0	1.5	3.5	2.0	3.0
16	1.5	0.5	1.0	0.0	0.0	0.0	2.5	0.5	1.5	4.0	2.5	3.0
17	1.5	0.5	1.0	0.0	0.0	0.0	2.5	0.5	1.0	4.0	2.0	3.0
18	1.5	1.0	1.5	0.0	0.0	0.0	2.5	1.0	1.5	4.5	2.5	3.5
19	1.5	1.5	1.5	0.0	0.0	0.0	2.0	1.5	1.5	5.0	2.5	3.5
20	1.5	0.5	1.0	0.0	0.0	0.0	1.5	0.5	1.0	5.0	2.5	3.5
21	1.0	0.5	1.0	0.0	0.0	0.0	1.0	0.5	1.0	3.5	3.0	3.5
22	1.0	0.0	0.5	0.0	0.0	0.0	2.0	0.5	1.0	3.5	3.0	3.5
23	0.0	0.0	0.0	0.5	0.0	0.5	2.5	0.5	1.5	4.5	3.0	3.5
24	0.0	0.0	0.0	1.0	0.0	0.5	2.5	1.0	1.5	5.0	3.5	4.0
25	0.0	0.0	0.0	1.0	0.5	0.5	3.0	1.0	2.0	6.0	3.0	4.5
26	1.0	0.0	0.5	1.0	0.5	1.0	2.5	0.5	1.5	5.0	3.5	4.0
27	1.0	0.5	1.0	1.5	0.5	1.0	2.5	1.0	1.5	4.5	3.5	4.0
28	1.5	1.0	1.0	1.0	0.5	1.0	3.0	1.5	2.0	4.5	3.5	4.0
29	---	---	---	1.5	1.0	1.0	3.0	1.0	2.0	5.0	4.0	4.5
30	---	---	---	1.5	0.5	1.0	3.0	1.0	2.0	5.5	4.0	4.5
31	---	---	---	1.5	0.5	1.0	---	---	---	5.0	4.0	4.5
MONTH	1.5	0.0	0.6	1.5	0.0	0.3	3.0	0.0	1.1	6.0	1.0	3.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.0	4.0	4.5	8.5	8.0	8.5	12.0	10.0	11.0	10.0	9.5	9.5
2	5.5	4.5	5.0	8.5	7.5	8.0	12.0	9.5	10.5	10.0	9.5	9.5
3	5.5	4.0	5.0	8.0	7.5	8.0	11.0	8.5	10.0	9.5	9.0	9.0
4	5.5	4.5	5.0	8.5	7.5	8.0	12.0	9.0	10.5	9.0	7.5	8.5
5	6.0	4.5	5.0	8.5	7.5	8.0	12.0	9.0	10.5	9.0	8.0	8.5
6	6.0	4.5	5.0	9.0	8.0	8.5	11.5	10.5	11.0	9.0	8.0	8.5
7	6.0	4.5	5.5	10.5	7.5	9.0	11.0	10.0	10.5	9.5	8.5	9.0
8	7.0	5.0	6.0	11.0	8.0	9.5	11.0	10.5	10.5	9.5	9.0	9.0
9	6.0	5.5	5.5	10.5	9.5	10.0	10.5	10.0	10.5	9.0	9.0	9.0
10	6.5	5.5	6.0	10.0	9.0	9.0	10.5	10.0	10.0	9.0	8.5	9.0
11	6.0	5.5	5.5	9.5	9.0	9.0	10.0	9.5	10.0	9.0	8.5	9.0
12	7.5	5.5	6.5	10.0	8.5	9.0	11.5	10.0	10.5	9.0	8.0	8.5
13	8.5	5.5	7.0	9.5	9.0	9.0	11.0	10.0	10.5	8.5	7.0	7.5
14	9.5	6.0	7.5	10.0	9.0	9.5	10.5	9.5	10.0	8.0	7.0	7.5
15	9.5	6.5	8.0	10.5	8.5	9.5	10.0	8.5	9.5	8.5	8.0	8.0
16	9.0	7.0	8.0	10.0	9.5	9.5	9.5	9.0	9.0	8.5	8.0	8.5
17	9.5	7.0	8.5	10.0	9.0	9.5	9.0	8.0	8.5	9.0	8.0	8.5
18	8.5	7.0	7.5	10.0	9.0	9.5	9.5	9.0	9.0	9.0	8.0	8.5
19	8.0	6.5	7.5	10.0	9.0	9.5	10.0	8.5	9.0	8.5	7.5	8.0
20	7.5	6.5	7.0	10.5	9.0	10.0	9.5	9.0	9.5	8.5	8.0	8.0
21	8.0	6.5	7.5	10.5	10.0	10.0	11.0	9.5	10.0	8.5	7.5	8.0
22	9.0	7.0	8.0	11.0	10.0	10.5	10.5	9.5	10.0	8.0	7.0	7.5
23	9.5	8.0	8.5	11.5	10.5	11.0	10.5	9.5	10.5	8.5	7.5	8.0
24	8.5	7.5	8.0	12.0	11.0	11.5	9.5	9.0	9.0	8.5	8.0	8.0
25	9.0	7.0	8.0	11.0	10.5	11.0	9.5	9.0	9.5	8.5	8.0	8.0
26	8.5	7.5	8.0	10.5	10.0	10.0	10.0	9.5	10.0	8.5	8.0	8.0
27	8.5	7.5	8.0	10.5	9.5	10.0	11.0	10.0	10.5	9.0	8.5	8.5
28	9.0	7.5	8.0	10.0	9.5	10.0	11.0	10.5	10.5	8.5	7.5	8.0
29	9.0	7.5	8.0	10.5	9.0	9.5	10.5	9.5	10.0	8.0	6.5	7.0
30	9.0	8.0	8.5	10.5	9.0	10.0	9.5	9.0	9.5	6.5	5.5	6.0
31	---	---	---	11.0	9.0	10.0	10.5	9.5	10.0	---	---	---
MONTH	9.5	4.0	6.9	12.0	7.5	9.5	12.0	8.0	10.0	10.0	5.5	8.3

15106970 MIDDLE BASIN CREEK NEAR TENAKEE

LOCATION.--Lat 57°41′33″, long 135°12′06″, in NE$\frac{1}{4}$ NE$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 21, T. 48 S., R. 63 E. (Sitka C-4 quad), Hydrologic Unit 19010203, in Tongass National Forest, on Chichagof Island, on left bank 0.3 mi upstream from confluence with Kadashan River, and about 7 mi south of Tenakee.

DRAINAGE AREA.--0.12 mi^2

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to July 1987(unpublished fragmentary records provided by the U.S. Forest Service). July 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 190 ft above sea level, from topographic map.

REMARKS.-- Records fair, except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.66	1.1	0.39	0.53	0.32	0.30	0.14	0.30	2.3	0.46	0.20	0.94
2	0.77	1.3	0.37	0.54	0.32	0.61	0.14	0.29	2.2	0.46	0.19	0.95
3	0.71	3.2	0.38	0.51	0.32	0.64	0.14	0.24	2.2	0.40	0.18	0.81
4	0.67	1.8	0.38	0.46	0.37	0.42	0.14	0.22	2.2	0.39	0.18	0.72
5	0.65	1.4	0.38	0.52	0.32	0.34	0.16	0.19	2.2	0.32	0.18	0.66
6	0.65	1.2	0.36	0.71	0.30	0.30	0.16	0.18	2.0	0.31	0.18	0.63
7	0.64	0.97	0.47	0.64	0.27	0.29	0.14	0.18	1.8	0.31	0.27	0.64
8	0.60	0.98	0.43	0.56	0.24	0.26	0.14	0.18	1.7	0.31	0.31	0.59
9	0.59	1.2	0.39	0.58	0.42	e0.27	0.15	0.18	1.7	0.28	0.24	0.55
10	0.63	1.0	0.42	0.56	0.89	0.28	0.17	0.20	1.7	0.29	0.19	0.50
11	0.67	0.87	0.39	0.56	0.54	0.29	0.16	0.24	1.6	0.27	0.19	0.46
12	1.4	0.84	0.42	0.52	1.2	0.25	0.17	0.30	1.4	0.25	0.47	0.42
13	1.2	0.84	0.39	0.49	0.61	0.22	0.19	0.37	1.3	0.28	0.39	0.38
14	1.2	0.89	0.35	0.46	0.93	0.20	0.19	0.35	1.3	0.25	0.30	0.39
15	1.5	0.88	0.34	0.51	1.3	0.19	0.18	0.35	1.3	0.24	0.32	0.41
16	1.7	0.79	0.31	0.47	1.1	0.18	0.16	0.47	1.3	0.24	0.31	0.38
17	1.9	0.71	0.31	0.46	0.71	0.18	0.14	0.50	1.2	0.24	0.29	0.40
18	2.3	0.71	0.30	0.51	0.63	0.17	0.14	0.54	1.1	0.21	0.29	0.60
19	2.8	0.69	0.29	0.54	0.58	0.17	0.16	0.63	0.96	0.21	0.28	0.48
20	2.6	0.73	0.30	0.52	0.47	0.15	0.25	0.75	0.88	0.20	0.28	0.44
21	2.3	0.68	0.30	0.43	0.40	0.17	0.27	0.97	0.85	0.23	0.53	0.85
22	2.0	0.67	0.32	0.37	0.33	0.19	0.21	1.4	0.84	0.22	0.41	0.67
23	1.7	0.59	0.48	0.44	0.29	0.20	0.18	1.8	0.84	0.24	0.48	0.70
24	1.5	0.56	1.2	0.42	0.27	0.19	0.17	1.8	0.71	0.28	0.42	0.67
25	1.2	0.53	0.71	0.34	0.27	0.22	0.17	1.7	0.68	0.20	0.46	0.64
26	1.1	0.49	0.61	0.30	0.28	0.27	0.17	1.8	0.62	0.19	0.55	0.61
27	1.0	0.46	0.61	0.28	0.33	0.23	0.18	2.0	0.60	0.20	0.65	0.61
28	1.1	0.45	0.60	0.31	0.29	0.21	0.20	2.4	0.60	0.18	0.90	0.56
29	1.2	0.41	0.59	0.32	---	0.20	0.22	2.9	0.57	0.19	0.89	0.51
30	1.0	0.38	0.55	0.35	---	0.18	0.25	2.7	0.52	0.19	0.91	0.46
31	0.90	---	0.53	0.34	---	0.17	---	2.4	---	0.19	1.0	---
TOTAL	38.84	27.32	13.87	14.55	14.30	7.94	5.24	28.53	39.17	8.23	12.44	17.63
MEAN	1.253	0.911	0.447	0.469	0.511	0.256	0.175	0.920	1.306	0.265	0.401	0.588
MAX	2.8	3.2	1.2	0.71	1.3	0.64	0.27	2.9	2.3	0.46	1.0	0.95
MIN	0.59	0.38	0.29	0.28	0.24	0.15	0.14	0.18	0.52	0.18	0.18	0.38
MED	1.1	0.81	0.39	0.49	0.35	0.22	0.17	0.47	1.3	0.24	0.31	0.60
AC-FT	77	54	28	29	28	16	10	57	78	16	25	35
CFSM	10.4	7.59	3.73	3.91	4.26	2.13	1.46	7.67	10.9	2.21	3.34	4.90
IN.	12.04	8.47	4.30	4.51	4.43	2.46	1.62	8.84	12.14	2.55	3.86	5.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.799	1.463	1.666	0.594	0.459	0.387	0.294	0.680	0.962	0.405	0.325	0.920
MAX	2.98	2.65	3.75	0.84	0.57	0.51	0.43	0.92	1.31	0.65	0.40	1.34
(WY)	2000	2000	2000	2001	2001	2001	2000	2002	2002	1999	2002	2000
MIN	1.16	0.83	0.45	0.47	0.30	0.26	0.17	0.51	0.74	0.27	0.21	0.59
(WY)	2001	2001	2002	2000	2000	2002	2002	2001	2000	2002	2001	2002

\# See Period of Record; partial years used in monthly statistics
e Estimated

15106970 MIDDLE BASIN CREEK NEAR TENAKEE—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002#	
ANNUAL TOTAL	226.49		228.06			
ANNUAL MEAN	0.621		0.625		0.820	
HIGHEST ANNUAL MEAN					1.20	2000
LOWEST ANNUAL MEAN					0.62	2002
HIGHEST DAILY MEAN	3.2	Nov 3	3.2	Nov 3	31	Dec 27 1999
LOWEST DAILY MEAN	0.17	Aug 18	a0.14	Apr 1	0.14	Apr 1 2002
ANNUAL SEVEN-DAY MINIMUM	0.18	Aug 13	0.15	Apr 1	0.15	Apr 1 2002
MAXIMUM PEAK FLOW			5.9	Nov 3	b66	Dec 27 1999
MAXIMUM PEAK STAGE			4.38	Nov 3	5.16	Dec 27 1999
INSTANTANEOUS LOW FLOW			0.11	Mar 20	c0.11	Mar 20 2002
ANNUAL RUNOFF (AC-FT)	449		452		594	
ANNUAL RUNOFF (CFSM)	5.17		5.21		6.84	
ANNUAL RUNOFF (INCHES)	70.21		70.70		92.88	
10 PERCENT EXCEEDS	1.1		1.3		1.3	
50 PERCENT EXCEEDS	0.49		0.45		0.50	
90 PERCENT EXCEEDS	0.25		0.18		0.24	

\# See Period of Record; partial years used in monthly statistics
a Apr. 1-4, 7-8, 17, and 18
b From rating curve extended above 3.0 ft^3/s
c Mar. 20, Apr. 2, 3, 7-9, 17, and 18, 2002

15106970 MIDDLE BASIN CREEK NEAR TENAKEE—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to July 1987 (unpublished fragmentary records provided by the U.S. Forest Service), July 2000 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 2000 to current year.

INSTRUMENTATION.--Electronic water-temperature recorder with 15-minute recording interval since July 09, 2000.

REMARKS.--Records represent water temperature at the sensor within 0.5°C. Temperature at the sensor was compared with the average of the river by cross section on July 15. No variation was found within the cross section. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 9.5°C, August 12, 2002; minimum, 0.0°C, March 15-17, 20, and April 9, 2002.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 9.5°C, August 12; minimum, 0.0°C, March 15-17, 20, and April 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)
JUL							
15...	1140	4.70	1.00	3.68	.25	7.5	12.0
15...	1142	4.70	2.00	3.68	.25	7.5	12.0
15...	1143	4.70	3.00	3.68	.25	7.5	12.0
15...	1144	4.70	4.00	3.68	.25	7.5	12.0

TEMPERATURE, WATER, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.0	6.5	6.5	4.5	4.0	4.0	1.0	0.5	1.0	2.5	2.5	2.5
2	7.0	6.5	6.5	4.5	4.0	4.5	1.0	0.5	1.0	2.5	2.5	2.5
3	6.5	6.5	6.5	4.5	4.0	4.5	2.0	1.0	1.5	3.0	2.5	2.5
4	6.5	6.5	6.5	4.0	4.0	4.0	2.0	2.0	2.0	2.5	2.5	2.5
5	6.5	6.5	6.5	4.0	4.0	4.0	2.0	1.0	1.5	3.0	2.5	3.0
6	6.5	6.5	6.5	4.0	3.5	4.0	2.0	1.0	2.0	3.0	3.0	3.0
7	6.5	6.0	6.0	4.0	3.5	3.5	2.0	1.5	2.0	3.5	3.0	3.0
8	6.5	6.0	6.0	4.0	3.5	4.0	2.0	2.0	2.0	3.0	3.0	3.0
9	6.5	6.0	6.0	4.0	3.5	4.0	2.0	2.0	2.0	3.5	3.0	3.5
10	6.5	6.0	6.0	4.5	4.0	4.0	2.5	2.0	2.0	3.5	3.0	3.0
11	6.0	5.5	6.0	4.0	4.0	4.0	2.5	2.0	2.5	3.5	3.0	3.5
12	6.0	5.5	6.0	4.0	3.5	3.5	2.5	2.0	2.5	3.5	3.0	3.0
13	6.0	5.5	5.5	4.0	3.5	3.5	2.5	2.0	2.5	3.0	3.0	3.0
14	5.5	5.0	5.5	4.0	3.5	4.0	2.0	1.5	2.0	3.0	3.0	3.0
15	5.5	5.0	5.0	4.0	4.0	4.0	1.5	1.5	1.5	3.5	3.0	3.0
16	5.5	5.5	5.5	4.0	4.0	4.0	1.5	1.0	1.0	3.5	3.0	3.0
17	5.5	5.0	5.5	4.0	4.0	4.0	1.5	1.0	1.5	3.0	3.0	3.0
18	5.5	5.5	5.5	4.0	4.0	4.0	1.5	1.5	1.5	3.0	3.0	3.0
19	5.5	5.0	5.0	4.5	4.0	4.0	2.0	0.5	1.5	3.0	3.0	3.0
20	5.0	5.0	5.0	4.5	4.5	4.5	2.0	1.0	2.0	3.0	2.5	3.0
21	5.0	5.0	5.0	4.5	4.5	4.5	2.0	2.0	2.0	2.5	1.5	2.0
22	5.0	5.0	5.0	4.5	4.5	4.5	2.0	2.0	2.0	1.5	1.5	1.5
23	5.0	4.5	4.5	4.5	4.0	4.0	2.0	1.5	2.0	2.0	1.5	2.0
24	4.5	4.0	4.5	4.0	3.5	4.0	2.0	1.5	2.0	2.0	1.5	2.0
25	4.5	4.0	4.0	3.5	2.0	3.0	2.5	2.0	2.5	2.0	1.0	1.5
26	4.0	4.0	4.0	2.0	1.5	2.0	2.5	2.5	2.5	1.5	0.5	1.0
27	4.0	4.0	4.0	1.5	1.0	1.5	2.5	2.5	2.5	1.0	0.5	0.5
28	4.0	4.0	4.0	1.5	1.0	1.5	2.5	2.5	2.5	1.5	1.0	1.5
29	4.5	4.0	4.0	1.0	1.0	1.0	2.5	2.5	2.5	2.0	1.5	2.0
30	4.5	4.0	4.0	1.0	1.0	1.0	2.5	2.5	2.5	2.0	2.0	2.0
31	4.0	3.5	4.0	---	---	---	2.5	2.5	2.5	2.0	2.0	2.0
MONTH	7.0	3.5	5.3	4.5	1.0	3.6	2.5	0.5	2.0	3.5	0.5	2.5

15106970 MIDDLE BASIN CREEK NEAR TENAKEE—Continued

TEMPERATURE, WATER, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	2.0	2.0	2.0	2.0	2.0	1.5	0.5	1.0	3.0	2.5	2.5
2	2.0	1.5	2.0	2.0	2.0	2.0	1.5	0.5	1.0	2.5	2.0	2.0
3	2.5	2.0	2.0	2.0	2.0	2.0	1.5	0.5	1.0	2.5	1.5	2.0
4	2.5	2.0	2.0	2.0	1.5	1.5	1.0	0.5	1.0	2.5	1.5	2.0
5	2.5	2.0	2.0	1.5	1.0	1.0	1.0	0.5	1.0	2.0	1.5	1.5
6	2.5	2.0	2.0	1.0	1.0	1.0	1.5	0.5	1.0	2.5	1.0	2.0
7	2.0	1.0	1.5	1.0	0.5	1.0	1.5	0.5	1.0	2.5	2.0	2.5
8	1.5	0.5	1.0	1.0	0.5	0.5	1.5	0.5	1.0	3.0	1.5	2.5
9	2.0	1.0	1.5	0.5	0.5	0.5	1.5	0.0	1.0	2.5	2.0	2.5
10	2.0	1.5	2.0	1.0	0.5	1.0	1.5	1.0	1.5	3.0	2.5	2.5
11	2.0	2.0	2.0	1.0	1.0	1.0	1.5	0.5	1.0	3.0	2.5	3.0
12	2.0	2.0	2.0	1.0	1.0	1.0	2.0	1.0	1.5	3.0	2.5	3.0
13	2.5	2.0	2.0	1.0	1.0	1.0	2.0	1.5	1.5	3.0	3.0	3.0
14	2.5	2.0	2.0	1.0	0.5	1.0	2.0	1.0	1.5	3.5	2.5	3.0
15	2.5	2.0	2.0	1.0	0.0	0.5	2.0	1.5	1.5	3.5	3.0	3.0
16	2.5	2.0	2.0	1.0	0.0	0.5	2.0	1.0	1.5	4.0	3.0	3.5
17	2.5	1.5	2.0	1.0	0.0	0.5	2.0	1.0	1.5	3.5	3.0	3.5
18	2.5	2.0	2.0	1.0	0.5	0.5	2.0	1.0	1.5	4.0	3.0	3.5
19	2.5	2.0	2.0	1.0	0.5	1.0	2.0	1.5	2.0	4.5	3.5	4.0
20	2.5	2.0	2.0	1.0	0.0	1.0	2.0	1.5	2.0	5.0	3.5	4.0
21	2.0	1.5	2.0	1.5	0.5	1.0	2.0	1.5	2.0	4.5	4.0	4.5
22	2.0	1.0	1.5	1.5	1.0	1.5	2.0	1.5	1.5	5.0	4.5	4.5
23	1.5	0.5	1.0	1.5	1.0	1.5	2.0	1.5	1.5	5.0	4.5	4.5
24	1.5	0.5	1.0	1.5	1.0	1.5	2.0	1.5	1.5	5.0	4.5	5.0
25	2.0	1.5	1.5	1.5	1.0	1.5	2.5	1.5	1.5	5.5	4.5	5.0
26	2.0	1.0	1.5	2.0	1.5	1.5	2.0	1.0	1.5	5.5	5.0	5.5
27	2.0	1.5	2.0	2.0	1.5	1.5	2.0	1.5	2.0	5.5	5.0	5.0
28	2.0	2.0	2.0	2.0	1.0	1.5	2.5	1.5	2.0	5.5	5.0	5.5
29	---	---	---	2.0	1.5	1.5	3.0	1.5	2.0	5.5	5.0	5.0
30	---	---	---	2.0	1.0	1.5	3.0	2.0	2.5	5.5	5.0	5.0
31	---	---	---	1.5	1.0	1.0	---	---	---	5.0	5.0	5.0
MONTH	2.5	0.5	1.8	2.0	0.0	1.2	3.0	0.0	1.5	5.5	1.0	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.0	5.0	5.0	7.0	6.5	6.5	8.5	7.5	8.0	8.0	7.5	7.5
2	5.5	5.0	5.0	6.5	6.5	6.5	8.0	7.5	8.0	7.5	7.5	7.5
3	5.5	5.0	5.0	6.5	6.5	6.5	8.0	7.0	7.5	8.0	7.5	7.5
4	5.5	5.0	5.5	6.5	6.5	6.5	8.5	7.0	8.0	7.5	7.0	7.5
5	5.5	5.0	5.0	6.5	6.5	6.5	8.5	7.0	8.0	7.5	7.0	7.5
6	5.5	5.0	5.0	6.5	6.5	6.5	8.5	8.0	8.0	7.5	7.0	7.5
7	5.5	5.0	5.5	7.0	6.0	6.5	8.5	8.0	8.0	7.5	7.5	7.5
8	6.0	5.0	5.5	7.5	6.5	7.0	8.5	8.0	8.0	7.5	7.0	7.5
9	6.0	5.5	5.5	7.0	7.0	7.0	8.0	8.0	8.0	7.5	7.0	7.5
10	6.0	5.5	5.5	7.0	7.0	7.0	8.0	8.0	8.0	7.5	7.0	7.0
11	5.5	5.0	5.5	7.0	7.0	7.0	8.0	8.0	8.0	7.5	7.0	7.0
12	6.0	5.0	5.5	7.5	6.5	7.0	9.5	8.0	8.5	7.5	7.0	7.0
13	6.5	5.0	6.0	7.0	7.0	7.0	8.5	8.0	8.5	7.0	6.5	7.0
14	7.5	5.5	6.5	7.0	7.0	7.0	8.5	8.0	8.0	7.0	6.5	7.0
15	7.5	6.0	6.5	7.5	7.0	7.0	8.5	7.5	8.0	7.5	7.0	7.0
16	7.0	6.0	6.5	7.5	7.0	7.0	8.0	8.0	8.0	7.0	7.0	7.0
17	7.0	6.0	6.5	7.5	7.0	7.0	8.0	7.5	7.5	7.5	7.0	7.0
18	6.5	6.0	6.0	7.5	7.0	7.0	8.0	7.5	8.0	7.5	7.0	7.0
19	6.5	6.0	6.0	7.5	7.0	7.5	8.0	7.5	8.0	7.5	7.0	7.0
20	6.0	6.0	6.0	7.5	7.0	7.5	8.0	7.5	8.0	7.0	7.0	7.0
21	6.5	6.0	6.0	7.5	7.5	7.5	8.5	8.0	8.0	7.0	7.0	7.0
22	6.5	6.0	6.5	8.0	7.5	7.5	8.5	8.0	8.0	7.0	6.5	7.0
23	7.0	6.5	6.5	8.0	7.5	8.0	8.5	8.0	8.0	7.0	6.5	7.0
24	6.5	6.5	6.5	8.0	7.5	8.0	8.0	7.5	8.0	7.0	7.0	7.0
25	7.0	6.5	6.5	8.0	7.5	7.5	8.0	8.0	8.0	7.0	7.0	7.0
26	6.5	6.5	6.5	7.5	7.5	7.5	8.0	8.0	8.0	7.0	7.0	7.0
27	6.5	6.5	6.5	8.0	7.5	7.5	8.5	8.0	8.0	7.0	7.0	7.0
28	7.0	6.0	6.5	7.5	7.5	7.5	8.5	8.0	8.5	7.0	6.5	7.0
29	7.0	6.5	6.5	8.0	7.0	7.5	8.5	8.0	8.0	6.5	6.0	6.5
30	7.0	6.5	6.5	8.0	7.5	7.5	8.0	7.5	7.5	6.5	5.5	6.0
31	---	---	---	8.0	7.5	7.5	8.0	7.5	7.5	---	---	---
MONTH	7.5	5.0	5.9	8.0	6.0	7.1	9.5	7.0	8.0	8.0	5.5	7.1

15109048 PETERSON CREEK BELOW NORTH FORK NEAR AUKE BAY

LOCATION.(REVISED)--Lat 58°17′00″, long 134°39′54″, in SE 1/4 NW 1/4 SW 1/4 sec. 29, T. 41 S., R. 66 E. (Juneau B-2 SW), Hydrologic Unit 19010301, City and Borough of Juneau, on Douglas Island, in Tongass National Forest, on left bank 100 ft downstream from North Fork Peterson Creek, 1.25 mi upstream from mouth, 7.2 mi south of Auke Bay, and 9.6 mi west of Douglas.

DRAINAGE AREA.--4.33 mi^2, revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1998 to current year.

REVISED RECORDS.--WDR AK-00-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	8.5	e1.7	8.0	6.9	3.8	e2.2	11	19	5.5	4.3	25
2	18	11	e1.7	6.9	6.0	23	e2.3	11	20	12	4.0	20
3	13	21	e1.7	6.3	5.6	29	e2.4	8.8	19	17	3.8	15
4	12	16	e1.8	5.9	5.5	13	e2.4	6.7	28	14	3.6	12
5	11	11	e1.8	5.7	4.7	7.7	e2.4	5.0	34	11	3.5	9.7
6	12	8.6	e1.8	9.6	4.5	e6.0	e2.4	4.1	24	9.6	3.2	8.3
7	12	7.2	e2.3	12	5.1	e4.8	e2.4	3.7	17	7.9	3.7	7.0
8	20	7.2	18	16	e5.5	e4.0	e2.4	3.5	15	6.6	13	7.1
9	15	30	e12	13	6.5	e3.2	e2.4	3.5	18	6.1	21	7.6
10	12	16	e10	13	33	e2.5	2.4	6.1	25	5.9	12	7.8
11	13	12	8.0	10	14	e2.1	2.4	8.8	18	6.6	9.4	11
12	24	9.1	5.3	10	39	e1.7	2.4	9.7	13	6.7	50	9.6
13	16	7.5	4.5	8.8	18	e1.5	2.4	16	11	7.1	34	8.3
14	13	8.1	4.1	7.4	31	e1.3	2.5	21	12	14	17	6.8
15	13	9.0	e3.4	7.5	32	e1.2	2.6	14	12	10	10	6.2
16	45	7.8	e3.0	11	48	e1.0	2.5	13	11	8.2	7.2	5.4
17	33	8.1	e2.7	8.8	20	e0.90	2.5	16	10	7.4	5.1	5.9
18	33	6.8	e2.5	10	12	e0.92	2.6	18	9.6	6.4	4.3	21
19	36	6.2	e2.5	11	8.1	e0.95	2.9	24	8.2	5.5	4.2	21
20	24	5.7	e2.5	9.7	6.2	e0.95	3.8	28	7.0	4.8	5.3	17
21	16	5.5	e2.7	7.3	5.0	e0.95	4.2	29	6.4	5.0	20	76
22	13	5.7	e3.3	e6.5	e4.1	e1.1	3.8	25	5.7	5.9	14	30
23	10	6.2	e4.2	e6.0	e3.6	e1.2	3.5	26	5.8	6.4	19	18
24	8.8	5.7	37	e7.0	e3.3	e1.4	3.5	21	6.2	12	16	15
25	7.6	5.1	29	e5.5	e3.0	e1.7	3.4	20	7.4	12	15	16
26	6.7	4.5	22	e5.0	4.2	e1.9	3.3	22	7.8	8.8	25	17
27	6.7	e3.5	16	e5.0	3.8	e2.2	3.3	23	7.0	7.3	45	17
28	9.6	e2.9	15	e5.5	3.7	e2.2	3.5	26	5.9	6.3	60	14
29	24	e2.5	15	6.9	---	e2.1	4.6	26	5.2	5.6	30	11
30	14	e2.1	12	7.3	---	e2.1	7.1	21	5.0	5.0	26	9.2
31	10	---	9.8	8.4	---	e2.1	---	16	---	4.5	26	---
TOTAL	517.4	260.5	257.3	261.0	342.3	128.47	90.5	486.9	393.2	251.1	514.6	454.9
MEAN	16.69	8.683	8.300	8.419	12.22	4.144	3.017	15.71	13.11	8.100	16.60	15.16
MAX	45	30	37	16	48	29	7.1	29	34	17	60	76
MIN	6.7	2.1	1.7	5.0	3.0	0.90	2.2	3.5	5.0	4.5	3.2	5.4
AC-FT	1030	517	510	518	679	255	180	966	780	498	1020	902
CFSM	3.85	2.01	1.92	1.94	2.82	0.96	0.70	3.63	3.03	1.87	3.83	3.50
IN.	4.45	2.24	2.21	2.24	2.94	1.10	0.78	4.18	3.38	2.16	4.42	3.91

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.76	11.24	17.56	8.790	6.073	6.314	8.846	14.45	13.80	10.01	10.55	16.39
MAX	20.6	19.7	43.2	12.4	12.2	7.96	19.2	18.1	14.9	15.9	16.6	22.5
(WY)	2000	2000	2000	1999	2002	2001	1999	1999	1999	2000	2002	2000
MIN	15.9	4.99	8.30	5.57	2.00	4.14	3.02	11.2	13.1	7.29	3.95	13.2
(WY)	2001	1999	2002	2000	1999	2002	2002	2001	2002	1999	2001	1999

\# See Period of Record
e Estimated

15109048 PETERSON CREEK BELOW NORTH FORK NEAR AUKE BAY—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002#	
ANNUAL TOTAL	3458.8		3958.17			
ANNUAL MEAN	9.476		10.84		12.06	
HIGHEST ANNUAL MEAN					15.5	2000
LOWEST ANNUAL MEAN					9.84	2001
HIGHEST DAILY MEAN	52	Feb 27	76	Sep 21	364	Dec 27 1999
LOWEST DAILY MEAN	1.7	Dec 1	a0.90	Mar 17	0.90	Mar 17 2002
ANNUAL SEVEN-DAY MINIMUM	1.8	Nov 30	0.97	Mar 16	0.97	Mar 16 2002
MAXIMUM PEAK FLOW			178	Sep 21	616	Dec 28 1999
MAXIMUM PEAK STAGE			9.14	Sep 21	10.80	Dec 28 1999
ANNUAL RUNOFF (AC-FT)	6860		7850		8740	
ANNUAL RUNOFF (CFSM)	2.19		2.50		2.79	
ANNUAL RUNOFF (INCHES)	29.72		34.01		37.85	
10 PERCENT EXCEEDS	19		24		22	
50 PERCENT EXCEEDS	7.7		7.6		7.9	
90 PERCENT EXCEEDS	3.0		2.4		3.0	

See Period of Record

15109048 PETERSON CREEK BELOW NORTH FORK NEAR AUKE BAY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2000 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
MAR									
21...	1150	7.50	3.00	59	6.2	.0	764	14.3	97
21...	1153	7.50	4.00	59	6.1	.0	764	14.3	97
21...	1156	7.50	5.00	59	6.1	.0	764	14.3	97
21...	1158	7.50	6.00	59	6.1	.0	764	14.2	97

Date	Time	Medium code	Sample type	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)
NOV													
06...	1130	9	9	6.61	8.6	--	10	18.7	--	--	--	--	--
19...	1200	9	9	6.51	6.2	70	20	20.0	.6	760	10.4	84	6.9
DEC													
27...	1156	H	9	--	E5.0	--	--	--	--	--	--	--	--
JAN													
03...	0940	F	9	6.43	6.3	--	--	--	--	760	5.7	--	--
07...	1010	9	9	6.74	12	--	--	19.5	--	738	13.1	99	7.4
17...	1030	9	9	6.63	8.6	100	20	19.2	2.6	768	13.0	93	7.0
FEB													
12...	1503	9	9	7.56	43	--	10	32.0	--	--	--	--	--
MAR													
12...	1545	9	9	6.46	1.8	--	10	7.80	--	747	11.9	83	6.5
21...	1204	9	9	--	E.95	25	70	7.50	3.7	764	14.3	97	6.1
MAY													
14...	1135	9	9	7.07	22	45	10	23.2	1.6	761	12.3	93	7.4
17...	1505	H	9	6.90	15	--	--	--	--	--	--	--	--
JUL													
02...	1005	9	9	6.76	12	--	--	--	--	763	11.4	95	7.9
02...	1010	F	9	--	--	--	--	--	--	763	8.9	--	--

Date	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
NOV													
06...	--	--	3.5	--	--	--	--	--	--	--	--	--	--
19...	56	--	6.0	24	7.29	1.30	1.80	18	22	<.01	2.21	.06	5.73
DEC													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	36	3.5	2.5	--	--	--	--	--	--	--	--	--	--
17...	43	--	2.0	20	6.08	1.11	1.66	16	20	<.01	1.95	.05	5.31
FEB													
12...	--	3.0	.0	--	--	--	--	--	--	--	--	--	--
MAR													
12...	56	-2.5	.0	--	--	--	--	--	--	--	--	--	--
21...	59	1.0	.0	26	7.78	1.46	2.33	22	27	<.01	2.40	.08	6.51
MAY													
14...	47	3.0	3.5	22	6.83	1.09	1.47	17	20	<.01	1.84	.07	4.64
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
02...	42	--	7.5	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--

15109048 PETERSON CREEK BELOW NORTH FORK NEAR AUKE BAY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
NOV													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	2.01	54	<.015	--	.019	E.002	.008	<.007	6.5	<.5	<8	<10	<13
DEC													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	1.96	48	<.015	--	.023	E.002	.006	<.007	6.2	<.5	<8	<10	<13
FEB													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	2.34	55	<.015	--	.057	<.002	.004	<.007	6.9	<.5	<8	<10	<13
MAY													
14...	2.34	27	<.04	.11	.08	<.008	<.06	<.02	5.3	<.5	<8	<10	<13
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV													
06...	--	--	--	--	--	--	--	--	--	--	--	8.0	.19
19...	<6	324	E.06	<4	22.0	<50	<30	<9	43.4	<8	<24	1.0	.02
DEC													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	E5	304	.10	<4	13.8	<50	<30	<9	37.5	<8	<24	1.0	.02
FEB													
12...	--	--	--	--	--	--	--	--	--	--	--	4.0	.47
MAR													
12...	--	--	--	--	--	--	--	--	--	--	--	1.0	.0
21...	<6	186	E.06	<4	18.1	<50	<30	<9	48.8	<8	<24	1.0	--
MAY													
14...	<6	149	<.08	<4	6.3	<50	<30	<9	39.1	<8	<24	5.0	.29
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	SAMPLER TYPE (CODE) (84164)
NOV											
06...	--	--	--	--	--	--	--	--	--	--	3044
19...	--	--	--	--	--	--	--	--	--	--	3045
DEC											
27...	0	1	2	8	22	40	58	78	92	100	8010
JAN											
03...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	3045
FEB											
12...	--	--	--	--	--	--	--	--	--	--	3044
MAR											
12...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	3045
MAY											
14...	--	--	--	--	--	--	--	--	--	--	3045
17...	0	1	8	27	41	55	66	81	94	100	8010
JUL											
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--

15129000 ALSEK RIVER NEAR YAKUTAT
(International gaging station)

LOCATION.--Lat 59°23'42", long 138°04'55", in NW$\frac{1}{4}$ NE$\frac{1}{4}$ sec. 19, T. 29 S., R. 44 E. (Yakutat B-1 quad), Hydrologic Unit 19010401, in Glacier Bay National Park, on right bank across from terminus of Walker Glacier, 33 mi upstream from Dry Bay, and 55 mi southeast of Yakutat.

DRAINAGE AREA.--10,820 mi^2.

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 250 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27800	11000	5980	e4600	e3550	e4000	e3250	10200	53700	68800	74400	67500
2	30900	11400	5510	e4500	e3550	e4100	e3200	11000	50800	68200	76200	59600
3	27500	11800	e5400	e4400	e3500	e4300	e3100	10500	49500	69100	79900	78600
4	25300	11500	e5350	e4400	e3500	e4100	e3000	10200	50700	73300	82100	78200
5	25300	10700	e5400	e4400	e3350	e4000	e2950	9960	50500	69300	83700	53500
6	26000	9930	e5500	e4900	e3300	e3800	e2950	9910	51200	67400	85100	49100
7	25300	9610	e5600	e5300	e3200	e3500	e2950	10100	50300	67700	81700	50000
8	24100	9760	e5600	e4900	e3100	e3400	e2900	10700	51600	72900	82700	48200
9	23600	9290	e5600	e4900	e3050	e3300	e2950	11300	57700	77800	86500	44300
10	25100	9590	e5600	e4900	e3200	e3200	e2950	11500	62100	76900	84000	40000
11	25000	9430	e5500	e5000	e3300	e3100	e3000	12500	62100	72500	78000	36400
12	23100	8640	e5450	e4800	e5500	e3100	e3100	13500	58000	70500	114000	34700
13	21800	8480	e5400	e4600	e6000	e3100	e3350	14800	57300	71300	175000	33400
14	19900	8490	e5400	e4300	e5800	e3100	e3600	16000	60600	72600	161000	31900
15	18500	8560	e5350	e4400	e5600	e3100	e3700	17000	74300	73600	132000	30500
16	17400	8440	e5300	e4200	e5300	e3050	e3800	18000	85800	75900	101000	29500
17	16900	8400	e5300	e4100	e5100	e3000	e4000	19500	92000	79800	81100	28400
18	19800	8930	e5200	e4200	e5050	e3000	e4300	23400	93500	83800	68900	28300
19	20500	8760	e5100	e4000	e4800	e3000	4690	27800	84100	86200	62100	27900
20	18700	8490	e5200	e3900	e4600	e2980	5420	32200	78900	83500	60600	26700
21	17600	8320	e5200	e3800	e4450	e3000	5820	37800	75500	82400	73800	25400
22	16800	8310	e5400	e3800	e4200	e3000	5700	40400	71400	80200	86900	24800
23	16000	8230	e6000	e3750	e4000	e2900	5700	39900	68900	83700	93500	23800
24	15300	7660	e6700	e3700	e3800	e2900	5640	42200	68700	93000	89000	23600
25	14800	7470	e6600	e3700	e3600	e3050	5640	45800	70600	98500	74400	24500
26	14100	7010	e6300	e3650	e3700	e3150	5790	50900	69100	101000	61400	26400
27	13400	6250	e5900	e3650	e4050	e3200	5960	54700	63500	97500	54500	28700
28	12600	6380	e5600	e3650	e4000	e3300	6430	56800	62900	91000	65100	30000
29	12500	6120	e5200	e3600	---	e3300	7230	57600	66300	79700	71700	28900
30	12000	6060	e4900	e3550	---	e3300	8310	58600	70400	71300	74400	27400
31	11400	---	e4700	e3550	---	e3300	---	56100	---	73300	72200	---
TOTAL	619000	263010	171240	131100	116150	102630	131380	840870	1962000	2432700	2666900	1140200
MEAN	19970	8767	5524	4229	4148	3311	4379	27120	65400	78470	86030	38010
MAX	30900	11800	6700	5300	6000	4300	8310	58600	93500	101000	175000	78600
MIN	11400	6060	4700	3550	3050	2900	2900	9910	49500	67400	54500	23600
AC-FT	1228000	521700	339700	260000	230400	203600	260600	1668000	3892000	4825000	5290000	2262000
CFSM	1.85	0.81	0.51	0.39	0.38	0.31	0.40	2.51	6.04	7.25	7.95	3.51
IN.	2.13	0.90	0.59	0.45	0.40	0.35	0.45	2.89	6.75	8.36	9.17	3.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	23830	9055	6622	5097	4306	4141	6412	26050	67930	85820	76710	49520
MAX	40300	14130	12470	9118	6625	6619	10870	40100	83970	98590	99370	76330
(WY)	1995	2001	2000	2001	1993	1992	1992	1993	1993	1993	1994	1995
MIN	12040	5828	3229	3045	2707	3033	4379	16770	53490	73510	59750	29040
(WY)	1997	1997	1997	1995	1995	1995	2002	2001	1996	1996	1996	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002#	
ANNUAL TOTAL	10970510		10577180			
ANNUAL MEAN	30060		28980		30490	
HIGHEST ANNUAL MEAN					35850	1993
LOWEST ANNUAL MEAN					23920	1996
HIGHEST DAILY MEAN	116000	Jul 23	175000	Aug 13	175000	Aug 13 2002
LOWEST DAILY MEAN	3940	Apr 2	a2900	Mar 23	2280	Mar 13 1999
ANNUAL SEVEN-DAY MINIMUM	4020	Apr 1	2950	Apr 4	2310	Mar 8 1999
MAXIMUM PEAK FLOW			b178000	Aug 13	b178000	Aug 13 2002
MAXIMUM PEAK STAGE			89.52	Aug 13	89.52	Aug 13 2002
ANNUAL RUNOFF (AC-FT)	21760000		20980000		22090000	
ANNUAL RUNOFF (CFSM)	2.78		2.68		2.82	
ANNUAL RUNOFF (INCHES)	37.72		36.37		38.29	
10 PERCENT EXCEEDS	84600		78400		82600	
50 PERCENT EXCEEDS	11500		10700		12000	
90 PERCENT EXCEEDS	4680		3300		3500	

\# See Period of Record; partial years used in monthly summary statistics
a Mar. 23-24 and Apr. 8
b From rating extended above 100,000 f^3s
e Estimated

15129500 SITUK RIVER NEAR YAKUTAT

LOCATION.--Lat 59°35′00″, long 139°29′31″, in SE1/4 SW1/4 sec. 9, T. 27 S., R. 35 E. (Yakutat C-4 quad.), Yakutat Borough, Hydrologic Unit 19010401, in Tongass National Forest, on left bank 20 ft downstream from Alsek Road bridge, 3.5 mi downstream from Situk Lake, 8.8 mi northeast of Yakutat, and 10 mi upstream from mouth.

DRAINAGE AREA.--36 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level, by U.S. Forest Service.

REMARKS.--Records good, except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jan 09	2215	1130	68.57	Aug 12	1645	*2340	*70.86
Jan 11	0815	1130	68.57	Aug 21	1645	1310	68.94

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	335	314	e180	286	173	147	e67	144	217	173	239	450
2	407	381	e160	261	165	e255	e64	161	226	175	211	399
3	381	426	e150	249	156	261	e62	160	233	170	189	356
4	361	466	e140	241	162	e210	e60	151	232	167	171	320
5	329	387	e130	277	164	e180	e57	146	268	164	157	293
6	333	332	e120	450	157	e160	e55	142	273	158	149	282
7	313	291	e110	709	e149	e150	e53	147	258	151	212	427
8	287	285	e100	727	142	e140	e51	149	242	144	235	437
9	338	276	e95	862	139	e130	e50	149	261	139	309	414
10	482	483	e90	921	156	e120	e49	183	315	135	417	375
11	515	488	e87	1000	191	e110	49	193	371	132	446	345
12	517	435	e83	753	304	e100	49	197	335	128	1720	317
13	470	360	e80	579	e295	e97	e49	192	297	121	2100	314
14	406	320	e77	474	311	e90	48	219	269	117	1600	322
15	356	365	e75	478	298	e85	48	274	248	112	1030	413
16	313	350	e74	471	e250	e81	e48	283	237	108	705	362
17	343	343	e73	404	e220	e78	48	258	228	109	534	352
18	597	503	e75	419	e200	e77	49	251	221	114	437	403
19	625	416	e90	384	e180	e76	59	251	216	109	375	385
20	589	358	118	340	e160	e75	95	253	216	105	383	399
21	577	322	130	297	e150	e75	110	255	213	100	1060	429
22	530	297	148	264	e130	e75	111	259	201	96	969	368
23	454	290	172	250	e120	e75	111	257	190	103	874	332
24	399	264	375	248	e110	75	109	245	183	188	764	303
25	348	244	575	218	e130	74	107	231	194	275	619	314
26	312	227	557	e200	150	74	105	220	207	309	503	311
27	277	213	538	e190	154	78	105	216	216	377	433	361
28	258	200	488	185	149	76	107	217	203	498	521	333
29	293	188	415	176	---	74	113	222	189	410	572	307
30	282	186	365	192	---	e73	121	223	178	335	532	286
31	258	---	319	186	---	e70	---	222	---	278	515	---
TOTAL	12285	10010	6189	12691	5065	3441	2209	6470	7137	5700	18981	10709
MEAN	396.3	333.7	199.6	409.4	180.9	111.0	73.63	208.7	237.9	183.9	612.3	357.0
MAX	625	503	575	1000	311	261	121	283	371	498	2100	450
MIN	258	186	73	176	110	70	48	142	178	96	149	282
AC-FT	24370	19850	12280	25170	10050	6830	4380	12830	14160	11310	37650	21240
CFSM	11.0	9.27	5.55	11.4	5.02	3.08	2.05	5.80	6.61	5.11	17.0	9.92
IN.	12.69	10.34	6.40	13.11	5.23	3.56	2.28	6.69	7.37	5.89	19.61	11.07

e Estimated

15129500 SITUK RIVER NEAR YAKUTAT—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)#

MEAN	541.6	345.6	386.7	287.4	240.7	237.0	237.5	277.0	232.5	191.7	280.4	508.5
MAX	878	598	739	620	471	516	370	418	345	292	612	838
(WY)	2000	1993	2000	2001	1997	1992	1998	1991	1991	1991	2002	1991
MIN	283	173	142	131	81.2	54.2	73.6	160	127	77.7	105	339
(WY)	1998	1999	1991	1996	1999	1989	2002	1996	1993	1993	1994	1997

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002#	
ANNUAL TOTAL	111863		100887			
ANNUAL MEAN	306.5		276.4		314.3	
HIGHEST ANNUAL MEAN					382	1992
LOWEST ANNUAL MEAN					230	1996
HIGHEST DAILY MEAN	1170	Feb 27	2100	Aug 13	2850	Dec 27 1999
LOWEST DAILY MEAN	73	Dec 17	a48	Apr 14	b47	Mar 5 1989
ANNUAL SEVEN-DAY MINIMUM	77	Dec 12	48	Apr 11	48	Mar 3 1989
MAXIMUM PEAK FLOW			2340	Aug 12	3840	Oct 18 1999
MAXIMUM PEAK STAGE			70.86	Aug 12	72.99	Oct 18 1999
INSTANTANEOUS LOW FLOW			c47	Apr 15	d47	Mar 5 1989
ANNUAL RUNOFF (AC-FT)	221900		200100		227700	
ANNUAL RUNOFF (CFSM)	8.51		7.68		8.73	
ANNUAL RUNOFF (INCHES)	115.59		104.25		118.61	
10 PERCENT EXCEEDS	583		488		597	
50 PERCENT EXCEEDS	248		228		237	
90 PERCENT EXCEEDS	128		77		114	

\# See Period of Record
a Apr. 14-17
b Mar. 5-7 1989
c Apr. 15 and 17, lowest observed, but may have been lower during periods of gage malfunction.
d Mar. 5, 1989 and Apr. 15 and 17, 2002

15129500 SITUK RIVER NEAR YAKUTAT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to 1973 and 1988 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1970 to September 1973 (fragmentary) and May 1988 to current year.

INSTRUMENTATION.--Water-temperature recorder October 1970 to September 1973, at a site 500 ft downstream. Electronic water-temperature recorder since May 1988, set for 2-hour recording interval. Recording interval changed to 15-minutes on March 6, 1996.

REMARKS.--Records represent water temperature at sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross section on March 12. No variation was found within the cross section, or between mean stream temperature and sensor temperature. October 1 to December 7 record considered fair, due to 4 hour recording interval.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 20.0°C, July 4, 1997; minimum, 0.0°C, on many days during winters.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 18.0°C, July 8; minimum, 0.0°C on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)
MAR								
12...	1631	63.0	6.0	65.39	103	10	1.0	3.0
12...	1633	61.0	18.0	65.39	103	10	1.0	3.0
12...	1635	61.0	30.0	65.39	103	10	1.0	3.0
12...	1637	61.0	42.0	65.39	103	10	1.0	3.0
12...	1639	61.0	54.0	65.39	103	10	1.0	3.0

TEMPERATURE, WATER (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.0	8.0	---	4.0	3.5	---	0.0	0.0	---	2.0	1.5	2.0
2	9.0	8.0	---	4.0	4.0	---	0.5	0.0	---	2.5	2.0	2.0
3	9.0	7.0	---	4.0	3.0	---	2.0	0.5	---	2.0	2.0	2.0
4	9.5	8.5	---	3.0	2.5	---	2.0	1.0	---	2.0	1.0	1.5
5	9.0	8.5	---	3.0	2.5	---	1.0	0.5	---	2.5	1.5	2.0
6	9.0	8.0	---	3.0	2.5	---	1.0	0.5	---	2.0	2.0	2.0
7	8.5	7.5	---	3.0	2.0	---	2.0	0.5	---	2.0	1.5	1.5
8	8.5	7.5	---	3.0	2.0	---	2.0	0.5	1.0	1.5	1.5	1.5
9	8.0	7.5	---	3.0	2.5	---	2.0	1.0	1.5	2.0	1.0	1.5
10	7.5	7.0	---	3.0	2.5	---	2.0	1.5	2.0	1.5	1.0	1.5
11	7.5	7.0	---	3.0	2.5	---	2.0	1.5	2.0	1.5	1.0	1.5
12	7.5	7.0	---	2.5	2.0	---	2.0	1.5	2.0	1.5	1.0	1.5
13	7.5	6.5	---	3.0	2.0	---	2.0	1.0	1.5	2.0	1.5	1.5
14	7.0	6.5	---	3.5	2.5	---	1.0	0.5	0.5	2.0	2.0	2.0
15	6.5	6.0	---	3.0	3.0	---	0.5	0.0	0.0	2.0	1.5	2.0
16	7.0	6.0	---	3.0	3.0	---	0.0	0.0	0.0	1.5	1.0	1.5
17	6.5	5.5	---	3.5	3.0	---	0.0	0.0	0.0	2.0	1.5	2.0
18	6.5	6.0	---	3.5	3.0	---	0.0	0.0	0.0	2.0	2.0	2.0
19	6.5	6.0	---	3.5	2.5	---	0.0	0.0	0.0	2.0	1.5	2.0
20	6.5	6.0	---	3.5	3.0	---	0.0	0.0	0.0	1.5	1.0	1.5
21	6.0	6.0	---	3.5	3.0	---	0.5	0.0	0.5	1.0	0.5	1.0
22	6.0	5.5	---	3.5	3.0	---	2.0	0.5	1.0	1.0	0.0	0.5
23	6.0	5.5	---	3.5	2.5	---	2.0	1.0	1.0	1.0	0.0	0.5
24	6.0	5.0	---	2.5	2.0	---	2.0	1.5	1.5	0.5	0.0	0.0
25	5.0	4.0	---	1.5	1.5	---	1.5	1.0	1.5	0.5	0.0	0.0
26	4.5	4.0	---	2.0	1.5	---	2.0	1.5	1.5	0.0	0.0	0.0
27	4.5	4.0	---	2.5	2.0	---	2.0	1.5	2.0	0.5	0.0	0.0
28	4.5	4.0	---	1.5	0.5	---	2.0	1.0	1.5	1.5	0.5	1.0
29	4.0	3.0	---	0.5	0.0	---	2.0	1.5	2.0	2.0	1.5	1.5
30	4.0	3.5	---	0.5	0.0	---	2.0	1.5	1.5	2.0	1.0	1.5
31	4.0	3.0	---	---	---	---	2.0	1.5	1.5	2.0	1.0	1.5
MONTH	9.5	3.0	---	4.0	0.0	---	2.0	0.0	---	2.5	0.0	1.4

15129500 SITUK RIVER NEAR YAKUTAT—Continued

TEMPERATURE, WATER (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	1.0	1.5	2.0	1.0	2.0	2.5	0.0	1.0	5.5	3.5	4.5
2	1.5	1.0	1.5	1.0	0.0	0.0	2.5	0.0	1.0	7.5	2.0	4.5
3	1.5	1.0	1.0	2.0	1.0	1.5	2.5	0.0	1.0	6.0	2.5	4.0
4	1.5	0.5	0.5	1.0	0.0	0.5	3.0	0.0	1.0	7.0	2.5	4.5
5	1.5	0.5	1.0	1.0	0.0	0.0	3.5	0.0	1.5	7.5	2.0	4.5
6	2.0	1.0	1.5	0.5	0.0	0.0	4.0	0.0	2.0	6.5	2.5	4.5
7	1.0	0.0	0.5	0.5	0.0	0.0	4.0	0.5	2.0	7.5	3.0	5.5
8	1.0	0.5	0.5	0.0	0.0	0.0	4.0	0.0	2.0	7.0	3.0	5.5
9	1.5	0.5	1.0	0.0	0.0	0.0	4.0	0.0	2.0	5.5	4.0	4.5
10	1.5	1.0	1.5	0.0	0.0	0.0	4.5	1.0	2.5	5.5	3.5	4.5
11	1.0	0.0	0.5	1.0	0.0	0.5	4.5	2.0	3.0	5.5	3.5	4.5
12	1.5	0.5	1.0	1.0	0.0	0.5	6.0	2.5	4.0	7.5	3.5	5.5
13	1.0	0.0	0.5	1.5	0.5	1.0	6.0	1.5	3.5	6.5	4.0	5.0
14	1.5	0.0	1.0	1.5	0.0	0.5	5.0	2.0	3.5	5.5	4.0	4.5
15	1.5	0.5	1.0	1.0	0.0	0.5	6.0	2.5	4.0	6.0	3.5	4.5
16	1.0	0.5	1.0	0.5	0.0	0.0	6.0	1.5	4.0	7.0	3.5	5.0
17	1.5	0.0	1.0	0.5	0.0	0.0	6.0	2.0	4.0	9.5	3.5	6.0
18	1.5	0.0	0.5	0.0	0.0	0.0	5.0	3.5	4.0	10.0	4.0	6.5
19	1.5	0.5	1.0	0.5	0.0	0.0	4.0	3.5	4.0	10.5	4.0	7.0
20	1.0	0.5	1.0	1.0	0.0	0.5	3.5	1.5	3.0	11.0	5.5	8.0
21	1.0	0.0	0.5	1.5	0.0	0.5	4.5	2.0	3.0	11.0	6.0	8.5
22	0.0	0.0	0.0	2.0	0.0	1.0	6.0	1.5	3.5	8.5	6.0	7.0
23	0.0	0.0	0.0	2.5	0.0	1.0	7.0	2.5	4.5	8.0	6.5	7.0
24	0.0	0.0	0.0	2.5	0.0	1.0	6.0	2.0	4.0	9.0	7.0	8.0
25	0.5	0.0	0.0	3.0	1.5	2.5	6.5	1.5	4.0	12.5	6.5	9.5
26	1.0	0.0	0.5	4.5	2.0	3.5	6.5	2.5	4.5	10.5	7.5	8.5
27	2.0	0.0	1.0	3.5	2.0	3.0	7.0	3.0	4.5	10.5	7.5	9.0
28	2.0	1.5	2.0	4.0	1.5	2.5	7.5	2.5	5.0	10.0	9.0	9.5
29	---	---	---	3.5	2.0	2.5	7.5	3.0	5.5	10.0	7.5	9.0
30	---	---	---	2.5	1.5	2.0	7.0	3.0	5.0	10.5	7.0	8.5
31	---	---	---	3.0	0.5	1.5	---	---	---	13.0	7.0	10.0
MONTH	2.0	0.0	0.8	4.5	0.0	0.9	7.5	0.0	3.2	13.0	2.0	6.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	9.0	9.5	12.5	12.0	12.0	17.0	13.0	15.0	12.5	11.0	12.0
2	9.0	7.5	8.5	13.0	11.5	12.5	17.0	13.0	15.0	12.5	10.5	11.5
3	11.0	7.5	9.5	14.0	11.5	13.0	17.5	13.5	15.5	13.5	10.5	11.5
4	10.5	9.0	9.5	13.0	12.0	12.0	17.5	13.0	15.0	12.5	10.0	11.0
5	10.5	8.5	9.5	13.5	11.0	12.5	15.5	13.5	14.5	12.5	9.5	11.0
6	11.0	9.5	10.0	13.5	11.5	12.5	14.0	13.0	13.5	11.5	10.5	11.0
7	14.5	9.5	11.5	17.0	11.5	14.0	13.0	12.0	12.5	10.5	10.0	10.0
8	12.0	9.5	11.0	18.0	11.5	14.5	13.5	12.5	13.0	11.0	10.0	10.5
9	10.5	9.5	10.0	16.0	13.5	14.0	13.0	12.5	13.0	11.5	10.0	10.5
10	10.0	8.5	9.5	13.5	11.5	12.5	14.0	12.5	13.0	11.0	10.0	10.5
11	10.5	9.5	9.5	14.0	11.5	13.0	13.0	12.5	13.0	11.0	10.0	10.5
12	11.5	9.5	10.5	15.5	12.0	13.5	13.0	12.5	12.5	11.0	9.5	10.5
13	14.5	10.0	12.0	16.5	11.0	14.0	13.5	12.5	13.0	10.5	9.5	10.0
14	15.5	10.0	12.5	15.0	13.0	13.5	14.5	12.5	13.5	10.0	9.0	9.5
15	16.5	11.0	13.5	14.5	12.5	13.5	15.0	13.0	14.0	10.0	9.0	9.5
16	15.0	12.0	13.0	15.0	11.5	13.5	14.5	13.0	14.0	11.0	8.5	9.5
17	13.5	12.0	12.5	14.0	12.0	13.0	14.0	12.5	13.0	9.5	8.5	9.0
18	13.0	11.5	12.5	15.0	12.0	13.5	13.0	12.0	12.5	9.0	8.5	9.0
19	12.5	11.5	12.0	16.5	12.0	14.0	13.5	12.5	13.0	10.0	8.5	9.5
20	12.5	11.0	12.0	15.0	11.5	13.5	13.0	12.0	12.5	9.5	8.5	9.0
21	12.5	10.5	11.5	14.0	12.5	13.5	12.0	11.5	12.0	10.0	8.0	9.0
22	15.0	10.5	12.5	14.0	13.0	13.5	12.5	11.5	12.0	10.0	8.0	9.0
23	14.0	12.0	13.0	13.5	12.5	13.0	12.5	12.0	12.0	10.0	9.0	9.5
24	15.0	12.0	13.0	13.0	12.0	12.5	13.5	11.5	12.5	10.0	9.0	9.5
25	13.5	12.0	12.5	13.5	12.5	13.0	12.5	11.5	12.0	10.0	9.0	9.5
26	12.5	11.5	11.5	13.5	13.0	13.5	13.0	11.0	12.0	10.0	9.0	9.5
27	13.0	11.0	12.0	13.5	12.5	13.0	12.5	11.5	12.0	10.0	9.0	9.5
28	16.0	10.5	13.0	13.5	12.0	12.5	11.5	11.0	11.5	10.0	8.5	9.0
29	17.0	11.0	14.0	14.0	12.0	13.0	12.0	11.0	11.5	9.0	7.5	8.0
30	14.5	11.5	12.5	16.0	12.5	14.0	11.5	11.0	11.5	9.0	7.5	8.0
31	---	---	---	17.0	13.0	14.5	12.5	11.0	11.5	---	---	---
MONTH	17.0	7.5	11.5	18.0	11.0	13.2	17.5	11.0	13.0	13.5	7.5	9.9

15129600 OPHIR CREEK NEAR YAKUTAT

LOCATION.--Lat 59°31′26″, long 139°44′37″, in SW$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$ sec. 1, T. 28 S., R. 33 E. (Yakutat C-5 SW quad), Hydrologic Unit 19010401, in Tongass National Forest, on right bank 0.8 mi upstream from Summit Lake and 2 mi south of Yakutat.

DRAINAGE AREA.-- 2.5 mi^2, approximately.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 9.05 ft above sea level, determined by levels survey.

REMARKS.--Records fair except for estimated daily discharges which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	25	e12	11	10	6.4	2.5	4.8	6.5	3.9	4.0	23
2	19	28	e11	10	9.6	12	2.5	5.4	7.0	3.7	3.8	20
3	17	29	11	9.3	8.8	13	2.4	5.3	8.0	3.5	3.5	18
4	16	30	10	8.7	8.8	11	2.3	5.2	7.8	3.5	3.2	17
5	14	26	11	11	8.2	9.5	2.3	5.0	7.3	3.2	3.1	16
6	14	24	9.6	20	7.6	8.4	2.2	5.0	6.8	3.0	3.1	15
7	15	22	9.1	27	7.0	7.6	2.1	5.2	6.4	2.9	5.5	25
8	13	22	8.5	26	6.5	7.0	2.1	5.5	6.0	2.7	5.5	28
9	18	20	8.0	30	6.1	6.5	2.0	5.8	6.6	2.6	5.1	26
10	23	31	7.3	36	8.1	6.1	1.9	6.5	7.2	2.6	4.7	23
11	25	31	6.9	40	11	5.8	1.9	7.0	7.4	2.5	6.9	20
12	27	29	6.6	35	19	5.5	1.9	7.4	7.1	2.5	30	18
13	25	26	6.4	30	17	5.2	1.9	7.4	6.6	2.4	25	18
14	21	23	6.0	26	16	4.9	1.8	7.8	6.2	2.2	21	18
15	19	24	5.9	29	14	4.6	1.8	9.1	5.8	2.2	18	23
16	18	24	5.5	29	13	e4.4	1.8	9.4	5.4	2.1	16	21
17	20	23	5.1	25	12	4.3	1.8	9.1	5.2	2.1	14	19
18	28	32	5.0	27	12	e4.1	1.8	9.1	5.0	2.1	12	19
19	30	30	5.1	25	11	e3.9	2.0	9.1	4.7	1.9	11	19
20	30	26	6.5	22	9.7	3.8	3.5	9.2	4.6	1.9	13	18
21	33	23	6.0	20	8.9	3.5	3.9	9.2	4.3	1.8	43	20
22	33	22	6.1	18	8.1	3.5	3.9	9.3	4.1	1.8	33	18
23	28	21	6.7	17	7.4	3.3	3.8	9.3	4.0	2.1	30	17
24	26	19	13	16	7.1	3.2	3.8	9.1	3.9	6.5	29	15
25	25	18	17	14	6.6	3.2	3.6	8.8	4.1	7.2	26	16
26	23	16	16	14	7.6	3.2	3.5	8.5	4.4	6.1	23	16
27	21	16	17	12	6.6	3.1	3.5	8.1	4.9	6.2	21	19
28	19	15	17	12	6.5	3.0	3.7	8.2	4.7	5.7	25	17
29	22	14	15	12	---	2.7	3.9	8.2	4.4	5.2	25	15
30	22	e13	13	12	---	2.7	4.2	7.3	4.0	4.8	25	15
31	21	---	12	12	---	2.6	---	6.7	---	4.3	26	---
TOTAL	685	702	295.3	636.0	274.2	168.0	80.3	231.0	170.4	105.2	514.4	572
MEAN	22.10	23.40	9.526	20.52	9.793	5.419	2.677	7.452	5.680	3.394	16.59	19.07
MAX	33	32	17	40	19	13	4.2	9.4	8.0	7.2	43	28
MIN	13	13	5.0	8.7	6.1	2.6	1.8	4.8	3.9	1.8	3.1	15
AC-FT	1360	1390	586	1260	544	333	159	458	338	209	1020	1130
CFSM	8.84	9.36	3.81	8.21	3.92	2.17	1.07	2.98	2.27	1.36	6.64	7.63
IN.	10.19	10.45	4.39	9.46	4.08	2.50	1.19	3.44	2.54	1.57	7.65	8.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.91	25.61	22.95	19.12	15.59	15.99	15.27	13.87	6.982	4.446	9.100	19.13
MAX	60.7	43.8	49.1	42.7	35.9	38.3	28.3	34.4	19.7	9.67	19.4	30.8
(WY)	2000	2000	2000	2001	1997	1992	1998	1999	1999	1998	1998	1998
MIN	20.5	12.6	8.96	5.13	3.31	4.13	2.68	6.17	2.01	0.66	1.32	5.90
(WY)	1998	1996	1996	1993	1999	1999	2002	1996	1993	1993	1993	1993

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	6484.2		4433.8			
ANNUAL MEAN	17.76		12.15		16.67	
HIGHEST ANNUAL MEAN					23.3	2001
LOWEST ANNUAL MEAN					10.9	1993
HIGHEST DAILY MEAN	60	Feb 27	43	Aug 21	e118	Dec 27 1999
LOWEST DAILY MEAN	a1.2	Aug 22	b1.8	Apr 14	0.27	Jul 31 1993
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 21	1.8	Apr 12	0.39	Jul 28 1993
MAXIMUM PEAK FLOW			51	Aug 21	c159	Oct 18 1999
MAXIMUM PEAK STAGE			11.59	Aug 21	c12.55	Oct 18 1999
INSTANTANEOUS LOW FLOW			d1.6	Apr 16	f0.21	Jul 28 1993
ANNUAL RUNOFF (AC-FT)	12860		8790		12080	
ANNUAL RUNOFF (CFSM)	7.11		4.86		6.67	
ANNUAL RUNOFF (INCHES)	96.48		65.97		90.60	
10 PERCENT EXCEEDS	38		26		36	
50 PERCENT EXCEEDS	16		8.9		13	
90 PERCENT EXCEEDS	2.3		2.7		3.4	

a Aug. 22-25
b Apr. 14-18, and July 21-22
c May have been exceeded during period of gage malfunction from Dec. 25 to 28, 1999
d Apr. 16-18
e Estimated
f Minimum recorded, Jul. 28, Aug. 2, Aug. 7 to Aug. 10, 1993, but may have been less during period water was below intake Jul. 28, Aug. 2, and Aug. 8 to Aug. 10, 1993

15130000 RUSSELL LAKE NEAR YAKUTAT

LOCATION.--Lat 59°55'04", long 139°22'56", in SW1/4 SW1/4 sec. 14, T. 23 S., R. 35 E. (Yakutat D-4 quad.), Yakutat Borough, Hydrologic Unit 19010401, in Tongass National Forest, in Russell Fiord Wilderness Area, on the left shore of Russell Lake, 6 mi southeast of Hubbard Glacier terminal area near Osier Island, and 33 miles northeast of Yakutat.

DRAINAGE AREA.--700 mi^2, approximately.

PERIOD OF RECORD.-- June 1986 to October 1986 (intermittent prior to August 11) and June 2002 to August 2002.

GAGE.-- Water-stage recorder. Datum of gage is sea level (levels by U.S. Forest Service GPS Survey of Aug. 2002). Prior to October 7, 1986, non-recording gage at site near south end of lake (USGS station 15129990) at same datum (revised).

REMARKS.--During May, 1986 and again in July, 2002, Russell Fiord was dammed by the advancing Hubbard Glacier. In each case the ice dam changed Russell Fiord from a tidal estuary to a closed lake, unofficially named "Russell Lake." Water inflow to the lake, predominantly runoff of melting snow and ice from surrounding glaciated mountains, raised the level of the lake to a high of 84.48 ft in October 1986 and 49.56 ft in August of 2002, when the ice dams failed. GOES satellite telemetry at station.

COOPERATION.-- Gage-height record was provided by personnel of U.S.D.A. Forest Service prior to August 11, 1986.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation 84.48 ft (revised), October 7, 1996, result of an ice dam formed by the advance of Hubbard Glacier.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 49.56 ft, August 14, result of an ice dam formed by the advance of Hubbard Glacier; minimum is tidally affected and not determined.

REVISIONS.--The daily elevations and maximum for calendar year 1986 have been revised to reflect sea level datum of 2002 as shown in the following table. They supersede figures published in Open File Report 86-545.

GAGE HEIGHT, FEET, CALENDAR YEAR JANUARY TO DECEMBER 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	---	---	---	---	70.0	81.1	---	---
2	---	---	---	---	---	---	---	---	70.5	81.5	---	---
3	---	---	---	---	---	3.0	---	46.6	70.9	82.0	---	---
4	---	---	---	---	---	3.3	---	---	71.4	82.5	---	---
5	---	---	---	---	---	3.6	22.7	---	71.8	83.3	---	---
6	---	---	---	---	---	---	---	49.9	72.1	84.0	---	---
7	---	---	---	---	---	---	---	---	72.5	84.30	---	---
8	---	---	---	---	---	---	---	---	72.9	34.98	---	---
9	---	---	---	---	---	---	---	---	73.3	---	---	---
10	---	---	---	---	---	---	---	---	73.6	---	---	---
11	---	---	---	---	---	---	---	56.5	74.0	---	---	---
12	---	---	---	---	---	8.6	27.3	57.6	74.3	---	---	---
13	---	---	---	---	---	---	---	59.2	74.7	---	---	---
14	---	---	---	---	---	---	---	60.3	74.9	---	---	---
15	---	---	---	---	---	---	---	60.9	75.3	---	---	---
16	---	---	---	---	---	---	---	61.4	75.7	---	---	---
17	---	---	---	---	---	---	31.9	62.0	76.0	---	---	---
18	---	---	---	---	---	---	---	62.4	76.4	---	---	---
19	---	---	---	---	---	---	---	62.9	76.7	---	---	---
20	---	---	---	---	---	---	---	63.2	77.1	---	---	---
21	---	---	---	---	---	---	---	63.8	77.9	---	---	---
22	---	---	---	---	---	---	---	64.1	78.4	---	---	---
23	---	---	---	---	---	---	38.6	64.4	79.3	---	---	---
24	---	---	---	---	---	15.3	---	65.1	79.7	---	---	---
25	---	---	---	---	---	---	---	65.5	80.1	---	---	---
26	---	---	---	---	---	16.8	---	66.0	80.3	---	---	---
27	---	---	---	---	---	---	---	66.7	80.5	---	---	---
28	---	---	---	---	---	---	---	67.6	80.6	---	---	---
29	---	---	---	---	---	---	---	68.0	80.8	---	---	---
30	---	---	---	---	---	---	---	68.9	81.0	---	---	---
31	---	---	---	---	---	---	---	69.4	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	75.76	---	---	---
MAX	---	---	---	---	---	---	---	---	81.00	---	---	---
MIN	---	---	---	---	---	---	---	---	70.00	---	---	---
MED	---	---	---	---	---	---	---	---	75.50	---	---	---

15130000 RUSSELL LAKE NEAR YAKUTAT—Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	10.91	34.41	---
2	---	---	---	---	---	---	---	---	---	11.55	35.22	---
3	---	---	---	---	---	---	---	---	---	12.13	35.98	---
4	---	---	---	---	---	---	---	---	---	12.74	36.79	---
5	---	---	---	---	---	---	---	---	---	13.30	37.61	---
6	---	---	---	---	---	---	---	---	---	13.87	38.37	---
7	---	---	---	---	---	---	---	---	---	14.47	39.27	---
8	---	---	---	---	---	---	---	---	---	15.16	40.33	---
9	---	---	---	---	---	---	---	---	---	15.91	41.40	---
10	---	---	---	---	---	---	---	---	---	16.58	42.53	---
11	---	---	---	---	---	---	---	---	---	17.24	43.52	---
12	---	---	---	---	---	---	---	---	---	17.87	45.86	---
13	---	---	---	---	---	---	---	---	---	18.54	48.84	---
14	---	---	---	---	---	---	---	---	---	19.23	44.27	---
15	---	---	---	---	---	---	---	---	---	19.89	8.27	---
16	---	---	---	---	---	---	---	---	---	20.57	---	---
17	---	---	---	---	---	---	---	---	---	21.36	---	---
18	---	---	---	---	---	---	---	---	---	22.23	---	---
19	---	---	---	---	---	---	---	---	---	23.06	---	---
20	---	---	---	---	---	---	---	---	---	23.81	---	---
21	---	---	---	---	---	---	---	---	---	24.52	---	---
22	---	---	---	---	---	---	---	---	---	25.21	---	---
23	---	---	---	---	---	---	---	---	---	25.94	---	---
24	---	---	---	---	---	---	---	---	6.57	27.00	---	---
25	---	---	---	---	---	---	---	---	7.20	28.27	---	---
26	---	---	---	---	---	---	---	---	7.81	29.35	---	---
27	---	---	---	---	---	---	---	---	8.39	30.42	---	---
28	---	---	---	---	---	---	---	---	8.90	31.50	---	---
29	---	---	---	---	---	---	---	---	9.51	32.28	---	---
30	---	---	---	---	---	---	---	---	10.22	32.92	---	---
31	---	---	---	---	---	---	---	---	---	33.62	---	---
MEAN	---	---	---	---	---	---	---	---	---	21.34	---	---
MAX	---	---	---	---	---	---	---	---	---	33.62	---	---
MIN	---	---	---	---	---	---	---	---	---	10.91	---	---
MED	---	---	---	---	---	---	---	---	---	20.57		

15200280 GULKANA RIVER AT SOURDOUGH

LOCATION.--Lat 62°31′15″, long 145°31′51″, in $SE^1/_4$ $NE^1/_4$ sec. 35, T. 9 N., R. 2 W. (Gulkana C-4 quad), Hydrologic Unit 19020102, near left bank on downstream side of pier of Alyeska Pipeline Service Company bridge, 0.3 mi downstream from Sourdough Creek and 0.8 mi southwest of Sourdough.

DRAINAGE AREA.--1,770 mi^2.

PERIOD OF RECORD.--October 1972 to September 1978, May to September 1982, October 1988 to September 1993, May 1997 to current year.

REVISED RECORDS.--WRD AK-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,845.96 ft above sea level (levels of Alyeska Engineering).

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	e580	e470	e400	e340	e320	e290	e280	4700	1390	816	2300
2	1050	e580	e460	e400	e340	e320	e290	e280	4090	1860	774	2210
3	1010	e580	e460	e390	e340	e320	e290	e280	3520	2750	757	2090
4	1010	e560	e460	e390	e340	e320	e290	e280	3010	2730	727	1940
5	998	e560	e460	e390	e340	e320	e290	e280	2740	2770	686	1850
6	1010	e560	e460	e390	e340	e310	e280	e280	3030	2470	658	1820
7	1000	e560	e450	e390	e340	e310	e280	e290	3290	2160	683	2350
8	989	e560	e450	e390	e340	e310	e280	e300	2900	1890	815	2980
9	972	e540	e450	e380	e340	e310	e280	e310	2550	1680	913	2840
10	966	e540	e440	e380	e340	e310	e280	e320	2270	1520	1160	2610
11	958	e540	e440	e380	e330	e310	e280	e330	2090	1420	1390	2420
12	925	e540	e440	e380	e330	e310	e280	e340	1970	1350	1750	2300
13	e800	e540	e440	e380	e330	e310	e280	e350	1860	1340	3080	2190
14	e700	e540	e440	e380	e330	e310	e280	e360	1760	1320	4090	2070
15	e700	e540	e440	e380	e330	e310	e280	e370	1670	1250	3290	1960
16	e680	e520	e430	e370	e330	e300	e270	e380	1580	1170	2570	1870
17	e680	e520	e430	e370	e330	e300	e270	e400	1500	1100	2170	1800
18	e660	e520	e430	e370	e330	e300	e270	e440	1430	1050	1920	1750
19	e660	e520	e420	e370	e330	e300	e270	e480	1420	1010	1750	1720
20	e640	e500	e420	e370	e330	e300	e270	e540	1950	967	2140	1750
21	e640	e500	e420	e360	e320	e300	e270	e600	3080	e900	4960	1770
22	e620	e500	e420	e360	e320	e300	e270	e660	3140	e870	7070	1700
23	e620	e490	e420	e360	e320	e300	e270	e740	2710	e830	6750	1650
24	e600	e490	e410	e360	e320	e300	e270	e900	2280	e800	5840	1590
25	e600	e480	e410	e360	e320	e300	e270	e1200	2000	e840	5090	1720
26	e600	e480	e410	e350	e320	e290	e270	e1500	1800	905	4360	2310
27	e600	e480	e410	e350	e320	e290	e270	e1800	1640	991	3760	2560
28	e600	e480	e400	e350	e320	e290	e270	e2100	1500	1000	3250	2480
29	e600	e480	e400	e350	---	e290	e280	e2400	1400	982	2870	2350
30	e600	e470	e400	e350	---	e290	e280	2560	1320	943	2590	2190
31	e580	---	e400	e350	---	e290	---	4570	---	876	2410	---
TOTAL	24128	15750	13390	11550	9260	9440	8320	25920	70200	43134	81089	63140
MEAN	778.3	525.0	431.9	372.6	330.7	304.5	277.3	836.1	2340	1391	2616	2105
MAX	1060	580	470	400	340	320	290	4570	4700	2770	7070	2980
MIN	580	470	400	350	320	290	270	280	1320	800	658	1590
AC-FT	47860	31240	26560	22910	18370	18720	16500	51410	139200	85560	160800	125200
CFSM	0.44	0.30	0.24	0.21	0.19	0.17	0.16	0.47	1.32	0.79	1.48	1.19
IN.	0.51	0.33	0.28	0.24	0.19	0.20	0.17	0.54	1.48	0.91	1.70	1.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	982.9	550.7	408.6	345.7	306.1	299.8	467.8	3112	2755	1509	1363	1451
MAX	1877	1020	777	629	478	420	1344	5630	4969	2696	2821	4253
(WY)	1991	1989	1989	1989	1989	1992	1993	1989	1977	1992	1992	1990
MIN	437	287	208	200	200	200	227	836	1150	637	714	505
(WY)	1975	1976	1974	1974	1974	1974	2000	2002	1998	1976	1989	1974

\# See Period of Record, partial years used in monthly statistics
e Estimated

15200280 GULKANA RIVER AT SOURDOUGH—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1973 - 2002#	
ANNUAL TOTAL	388726		375321			
ANNUAL MEAN	1065		1028		1132	
HIGHEST ANNUAL MEAN					1564	1992
LOWEST ANNUAL MEAN					658	1998
HIGHEST DAILY MEAN	4930	May 25	7070	Aug 22	12100	Sep 12 1990
LOWEST DAILY MEAN	a300	Mar 13	b270	Apr 16	c200	Dec 6 1973
ANNUAL SEVEN-DAY MINIMUM	300	Mar 13	270	Apr 16	200	Dec 6 1973
MAXIMUM PEAK FLOW			7380	Aug 22	d12700	Sep 12 1990
MAXIMUM PEAK STAGE			9.41	Aug 22	11.26	Sep 12 1990
MAXIMUM PEAK STAGE					f16.03	May 07 1976
ANNUAL RUNOFF (AC-FT)	771000		744400		820000	
ANNUAL RUNOFF (CFSM)	0.60		0.58		0.64	
ANNUAL RUNOFF (INCHES)	8.17		7.89		8.69	
10 PERCENT EXCEEDS	2220		2470		2670	
50 PERCENT EXCEEDS	650		520		607	
90 PERCENT EXCEEDS	320		290		250	

\# See Period of Record, partial years used in monthly statistics
a Mar. 13-27
b Apr. 16-28
c Dec. 6, 1973 to Apr. 12, 1974
d From rating curve extended above 4,600 ft^3/s
f Backwater from ice

15215990 NICOLET CREEK NEAR CORDOVA

LOCATION.--Lat 60°31′09″, long 145°47′23″, in SW$^{1}/_{4}$ SW$^{1}/_{4}$ SE$^{1}/_{4}$ sec. 32, T. 15 S., R. 3 W. (Cordova C-5 quad), Hydrologic Unit 19020201, on right bank 275 ft upstream from culvert for Whitshed Road, 475 ft upstream from mouth and 2.1 mi southwest of Cordova.

DRAINAGE AREA.--0.75 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1991-99. September 1999 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 40 ft above sea level, from topographic map.

REMARKS.--Records good except for discharges greater than 60 ft^3/s, which are fair; and estimated daily discharges, which are poor.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	7.5	0.99	14	1.7	e3.0	2.2	9.6	3.8	0.98	0.85	2.4
2	5.5	11	1.0	7.2	1.2	e5.0	2.4	6.0	7.8	0.89	0.72	1.4
3	13	5.3	0.95	19	0.94	e3.0	2.7	6.3	14	0.83	0.62	0.87
4	10	3.8	0.79	12	2.1	e2.5	3.1	5.7	11	1.6	0.55	0.67
5	27	2.3	0.73	56	2.2	e2.0	3.9	4.4	7.2	0.98	0.50	0.58
6	10	2.7	0.81	63	1.3	e2.0	4.6	4.1	3.4	0.82	1.3	1.7
7	5.0	3.5	0.72	78	1.0	e2.0	5.3	5.0	2.5	0.70	31	13
8	2.9	2.2	0.63	12	0.90	e1.5	4.7	6.5	9.2	0.59	32	6.0
9	40	1.3	0.61	70	0.84	e1.5	4.4	23	31	0.53	4.3	1.9
10	35	8.5	0.57	9.2	1.0	e1.5	3.4	13	40	0.60	34	1.1
11	8.4	22	2.8	5.0	e3.0	1.6	3.3	8.0	43	1.2	48	5.3
12	4.0	4.7	e5.5	3.3	e7.0	1.4	2.5	8.0	9.0	1.1	36	51
13	2.2	2.4	4.6	3.1	3.4	1.3	2.3	8.1	3.3	0.81	7.0	51
14	6.5	2.2	2.0	35	7.0	1.2	2.3	7.5	2.3	0.65	1.9	7.2
15	5.5	6.9	1.8	35	2.3	1.4	2.6	20	1.5	0.54	1.1	3.9
16	2.2	3.1	1.7	5.7	1.6	1.6	2.9	8.3	1.1	0.43	0.83	1.8
17	9.3	32	1.8	49	1.3	1.6	2.7	9.9	0.97	0.36	0.60	16
18	6.2	34	2.1	19	1.1	1.5	6.9	11	0.96	3.2	0.48	3.9
19	16	4.6	1.9	4.8	2.4	1.5	144	11	1.2	1.3	0.48	1.6
20	11	11	e5.0	2.7	2.6	1.7	50	11	4.2	0.89	31	5.0
21	16	4.2	e6.5	5.1	1.3	1.9	19	11	3.8	0.70	63	2.6
22	4.4	3.6	e9.0	6.7	0.84	2.2	12	12	1.9	1.2	70	1.4
23	2.7	15	5.0	1.8	0.86	2.7	11	8.3	6.4	17	8.0	2.0
24	2.0	2.8	3.3	1.1	0.83	2.8	9.2	6.4	8.0	34	5.5	11
25	1.6	1.8	78	0.92	1.4	4.9	3.7	7.7	3.8	6.6	2.2	31
26	1.2	1.8	79	0.84	e1.5	9.3	2.3	8.6	31	30	1.4	37
27	1.2	1.3	34	0.80	e2.0	8.4	3.3	8.2	22	38	0.97	18
28	1.2	1.3	14	0.96	e2.5	5.1	5.6	6.8	3.3	3.9	0.78	5.6
29	2.3	2.4	18	e8.0	---	3.8	7.6	7.5	1.7	2.1	0.61	1.9
30	1.5	1.1	19	e6.5	---	2.6	8.3	5.8	1.2	1.4	14	41
31	1.2	---	8.8	3.4	---	2.1	---	4.0	---	1.0	15	---
TOTAL	322.0	206.3	311.60	539.12	56.11	84.6	338.2	272.7	280.53	154.90	414.69	327.82
MEAN	10.39	6.877	10.05	17.39	2.004	2.729	11.27	8.797	9.351	4.997	13.38	10.93
MAX	67	34	79	78	7.0	9.3	144	23	43	38	70	51
MIN	1.2	1.1	0.57	0.80	0.83	1.2	2.2	4.0	0.96	0.36	0.48	0.58
AC-FT	639	409	618	1070	111	168	671	541	556	307	823	650
CFSM	13.8	9.17	13.4	23.2	2.67	3.64	15.0	11.7	12.5	6.66	17.8	14.6
IN.	15.97	10.23	15.46	26.74	2.78	4.20	16.77	13.53	13.91	7.68	20.57	16.26

e Estimated

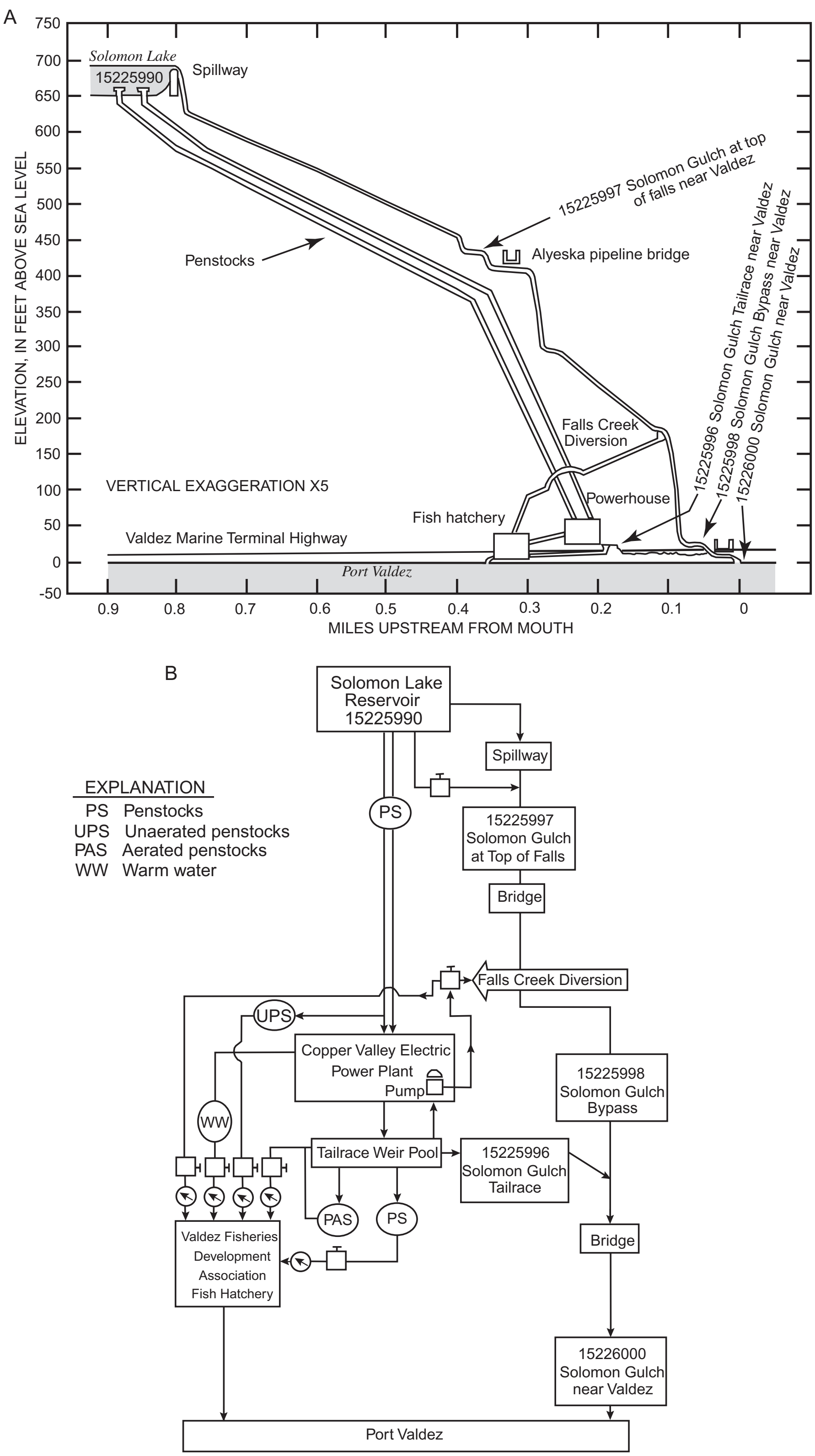
15215990 NICOLET CREEK NEAR CORDOVA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.70	10.33	16.80	18.32	6.377	7.116	10.52	11.93	6.520	5.790	7.798	9.622
MAX	20.2	16.3	20.4	26.6	11.2	10.2	11.3	16.1	9.35	6.79	13.4	10.9
(WY)	2001	2001	2000	2001	2000	2000	2002	2000	2002	2001	2002	2002
MIN	10.4	6.88	10.1	10.9	2.00	2.73	9.15	8.80	1.59	5.00	4.97	8.85
(WY)	2002	2002	2002	2000	2002	2002	2001	2002	2001	2002	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002#	
ANNUAL TOTAL	3379.53		3308.57			
ANNUAL MEAN	9.259		9.065		10.70	
HIGHEST ANNUAL MEAN					11.7	2001
LOWEST ANNUAL MEAN					9.06	2002
HIGHEST DAILY MEAN	80	Jan 7	144	Apr 19	144	Apr 19 2002
LOWEST DAILY MEAN	a0.17	Jul 2	0.36	Jul 17	a0.17	Jul 2 2001
ANNUAL SEVEN-DAY MINIMUM	0.19	Jun 27	0.69	Dec 4	0.19	Jun 27 2001
MAXIMUM PEAK FLOW			b186	Apr 19	cd988	Nov 3 1994
MAXIMUM PEAK STAGE			24.38	Apr 19	d19.60	Nov 3 1994
INSTANTANEOUS LOW FLOW			0.30	Jul 18	0.16	Jul 2 2001
ANNUAL RUNOFF (AC-FT)	6700		6560		7750	
ANNUAL RUNOFF (CFSM)	12.3		12.1		14.3	
ANNUAL RUNOFF (INCHES)	167.62		164.11		193.82	
10 PERCENT EXCEEDS	25		30		31	
50 PERCENT EXCEEDS	4.0		3.3		4.6	
90 PERCENT EXCEEDS	0.79		0.85		1.0	

\# See Period of Record and Remarks
a Jul. 2 and 3
b From rating curve extended above 33 ft^3/s on basis of step-backwater analysis
c From rating curve extended above 66 ft^3/s on basis of slope-area measurement of peak flow
d Site and datum then in use



Solomon Gulch (A) profile and (B) schematic diagram of flows.

15225990 SOLOMON LAKE NEAR VALDEZ

LOCATION.--Lat 61°04′25″, long 146°18′08″, in NE$\frac{1}{4}$ SW$\frac{1}{4}$ sec. 21, T. 9 S.,R. 6 W.(Valdez A-7 SE quad), Hydrologic Unit 19020201, within Valdez Corporate boundary, at outlet of Solomon Lake, 0.7 mi upstream from mouth of Solomon Gulch, and 4.6 mi southeast of Valdez.

DRAINAGE AREA.--19.2 mi^2.

PERIOD OF RECORD.--October 1991 to current year. Additional unpublished records prior to period of record available from Copper Valley Electric Association and in station files of Geological Survey.

REMARKS.--Reservoir is formed by a rockfill dam at outlet of Solomon Lake. Reservoir is used for power; power-plant operation began January 6, 1982. Usable capacity is 31,500 acre-feet below spillway crest at 685 ft. Discharge released to the penstocks is accounted for at Solomon Gulch Tailrace (station 15225996). Releases through the dam to maintain minimum flows, spillway releases, and incremental flow are accounted for at the Solomon Gulch at top of falls gage (station 15225997).

COOPERATION.--Reservoir contents furnished by Copper Valley Electric Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents 32,500 acre-ft, September 21, 1993, from crest-stage gage and rating extended above 31,500 acre-ft; minimum contents, 2,167 acre-ft, May 1, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 32,000 acre-ft August 23, elevation, 685.93 ft; minimum contents, 3,380 acre-ft, May 15, elevation, 622.50 ft.

MONTH END RESERVOIR ELEVATION, IN FEET, AND CONTENTS, IN ACRE FEET
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ELEVATION	CONTENTS	CHANGE IN CONTENTS
SEP 30	683.0	29,800	----
OCT 31	677.8	26,400	-3,400
NOV 30	671.6	22,800	-3,600
DEC 31	664.8	19,400	-3,400
JAN 31	658.4	16,200	-3,200
FEB 28	651.4	13,200	-3,000
MAR 31	641.1	9,000	-4,200
APR 30	628.8	5,000	-4,000
MAY 31	645.8	11,000	+6,000
JUN 30	665.4	19,800	+8,800
JUL 31	670.8	22,400	+2,600
AUG 31	684.6	31,200	+8,800
SEP 30	685.0	31,500	+300
		CAL YR 2001	-1,000
		WTR YR 2002	+1,700

15225996 SOLOMON GULCH TAILRACE NEAR VALDEZ

LOCATION.--Lat 61°05'01", long 146°18'10", in NE1/4 SE1/4 SW1/4 sec. 16, T. 9 S., R. 6 W. (Valdez A-7 SE quad), Hydrologic Unit 19020201, within Valdez Corporate boundary, on left wingwall of tailrace pool of Copper Valley Electric Association powerhouse facility, 350 ft upstream from mouth at Solomon Gulch, and 3.8 mi southeast of Valdez.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 1986 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 40 ft above sea level, from topographic map.

REMARKS.--Records good. Discharge shown herein is flow through the Solomon Gulch Power Plant turbines. Solomon Lake, 0.8 mi upstream, supplies water to the power-plant through two 48-in. diameter penstocks. Water for the fish hatchery, diverted upstream from the gage, is not included in these published daily values. Annual mean discharge for these diversions for 2002 water year was 13.2 ft^3/s.

COOPERATION.--Records of daily discharge diverted to the fish hatchery are furnished by Valdez Fisheries Development Association. Copper Valley Electric Association provides tables of hourly power output through the turbines.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 293 ft^3/s, January 2 and 3, 1992, gage height, 3.04 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 269 ft^3/s, August 27; Maximum gage height, 3.03 ft, July 16; no flow for periods on January 5, March 19, May 20, June 14, August 1 and August 19.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	68	63	74	53	47	75	52	192	166	144	195
2	180	74	61	77	50	43	69	57	189	173	188	202
3	191	70	73	59	51	46	83	75	199	185	183	118
4	186	74	70	48	56	50	72	91	207	222	191	173
5	172	80	79	48	48	46	67	87	206	222	201	216
6	160	78	70	52	47	43	66	94	202	224	203	209
7	165	70	66	49	54	48	64	97	197	229	198	199
8	190	63	59	54	43	52	53	90	204	228	201	199
9	185	66	56	60	62	51	54	84	210	220	201	145
10	188	59	62	65	45	51	53	79	205	224	200	141
11	194	61	56	66	41	53	54	74	201	212	203	155
12	192	66	53	59	42	49	55	70	159	205	204	201
13	186	70	62	62	43	50	53	78	196	218	202	200
14	187	75	63	59	42	49	66	80	139	221	202	191
15	123	60	48	56	47	51	56	92	161	220	200	190
16	79	60	50	58	46	50	54	103	199	226	188	199
17	76	63	50	63	44	52	50	102	199	210	211	199
18	67	70	57	57	45	54	61	94	163	208	215	199
19	65	68	54	58	56	44	60	90	178	203	151	196
20	67	71	51	57	54	51	51	47	216	203	182	201
21	68	65	46	66	49	51	53	164	215	197	207	193
22	66	61	49	52	46	58	63	212	210	198	191	193
23	65	56	48	53	43	54	64	218	213	204	197	202
24	65	51	46	54	42	55	59	224	221	202	209	199
25	82	54	48	59	46	57	53	214	218	202	208	197
26	88	71	52	57	46	83	49	166	217	200	222	199
27	82	75	58	61	44	87	52	200	213	192	215	196
28	83	76	67	52	47	79	52	204	176	190	208	185
29	81	74	67	51	---	92	50	203	211	205	205	187
30	71	68	61	54	---	77	54	200	208	201	208	204
31	68	---	63	49	---	69	---	203	---	203	203	---
TOTAL	3861	2017	1808	1789	1332	1742	1765	3844	5924	6413	6141	5683
MEAN	124.5	67.23	58.32	57.71	47.57	56.19	58.83	124.0	197.5	206.9	198.1	189.4
MAX	194	80	79	77	62	92	83	224	221	229	222	216
MIN	65	51	46	48	41	43	49	47	139	166	144	118
AC-FT	7660	4000	3590	3550	2640	3460	3500	7620	11750	12720	12180	11270

CAL YR 2001 TOTAL 43142.6 MEAN 118.2 MAX 209 MIN 1.0 AC-FT 85570
WTR YR 2002 TOTAL 42319 MEAN 115.9 MAX 229 MIN 41 AC-FT 83940

15225997 SOLOMON GULCH AT TOP OF FALLS NEAR VALDEZ

LOCATION.--Lat 61°04′45″, long 146°18′11″, in SE$\frac{1}{4}$ NE$\frac{1}{4}$ NW$\frac{1}{4}$ sec. 21, T. 9 S., R. 6 W. (Valdez A-7 SE quad), Hydrologic Unit 19020201, within Valdez Corporate boundary, on right bank, 72 ft above Alyeska Pipeline Service Company Bridge, 150 ft upstream from top of falls, 0.3 mi upstream from mouth, and 4.2 mi southeast of Valdez.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 1986 to current year.

REVISED RECORDS.--WDR AK-00-1: 1999.

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above sea level, from topographic map. Prior to October 1, 1991, discharge computed for site 150 ft downstream at datum 72.00 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Discharge shown herein represents controlled releases from bypass valve and flow over the spillway of dam at Solomon Lake, 0.5 mi upstream, plus inflow between the spillway and the gage. Spillway crest elevation is 685 ft above sea level, from construction plans. Water for power generation is diverted from Solomon Lake (see records for station 15225996). Water is diverted for fish hatchery use 1,150 ft downstream from gage. Reservoir spilled August 21-26, September 13-16, September 26-28, and September 30, 2002.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,280 ft^3/s, October 11, 1986, by computation of peak flow by several indirect measurement methods; gage height, 82.20 ft from water surface profiles for 1986 flood at top of falls and at datum 72.00 ft lower (12.90 ft from profile at present site and datum); minimum daily discharge, about 0.20 ft^3/s, January 23 to April 6, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft^3/s, August 22, gage height, 8.25 ft; minimum daily discharge, 2.3 ft^3/s, March 20, 22.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	3.6	4.0	3.6	3.5	3.1	3.3	8.0	7.5	4.1	4.6	5.9
2	9.3	3.4	4.2	3.5	3.4	3.1	3.3	7.0	7.2	4.0	4.5	5.0
3	7.0	3.3	3.7	3.6	3.4	3.2	3.1	5.6	7.1	3.9	4.4	4.7
4	7.8	3.4	3.1	3.6	3.4	3.2	3.1	5.3	6.4	4.0	4.4	4.5
5	11	3.3	3.2	3.9	3.5	3.3	3.1	4.7	6.6	3.8	4.4	4.5
6	8.9	3.2	3.2	5.5	3.5	3.2	3.1	4.0	8.0	3.8	4.4	4.9
7	7.4	3.3	3.2	6.1	3.5	3.0	3.1	4.0	6.3	3.7	4.6	4.9
8	5.9	3.3	e3.2	5.2	3.4	2.9	3.2	4.7	5.6	3.6	8.1	4.9
9	6.0	3.2	e3.3	9.6	3.3	2.9	3.3	5.8	6.7	3.6	17	4.6
10	8.8	3.1	e3.3	7.0	3.3	2.9	3.3	7.1	5.6	3.6	9.3	4.6
11	9.0	3.2	e3.4	5.1	3.3	2.8	3.3	7.7	5.2	3.8	17	7.6
12	6.7	3.1	e3.4	4.8	3.3	2.7	3.3	8.2	4.5	3.9	14	9.2
13	5.7	3.0	e3.5	4.5	3.3	2.7	3.2	9.8	4.0	3.8	14	376
14	5.1	3.0	3.0	4.4	3.4	2.7	3.1	11	4.1	3.8	8.2	411
15	4.9	3.0	2.7	4.5	3.3	2.6	3.1	15	4.2	3.9	6.7	145
16	4.7	3.0	2.7	4.3	3.3	2.5	3.2	9.7	4.2	4.0	6.1	20
17	4.6	3.7	2.7	4.2	3.2	2.4	3.1	22	4.3	4.1	5.9	5.8
18	4.4	5.8	2.9	4.1	3.2	2.4	3.0	28	4.0	4.8	5.8	5.6
19	4.4	4.1	3.1	4.0	3.1	2.4	3.0	24	3.9	4.4	6.2	5.4
20	4.3	3.5	3.1	4.0	3.2	2.3	3.1	21	3.8	4.4	13	6.5
21	4.3	3.4	3.2	3.9	3.1	2.4	2.9	20	3.9	4.3	390	6.0
22	4.4	3.4	3.6	e3.8	3.1	2.3	2.8	16	3.9	4.2	1110	5.7
23	4.1	3.5	3.6	3.8	2.8	2.4	2.7	15	3.9	4.2	516	5.8
24	4.0	3.4	3.5	e3.7	2.7	2.5	2.6	15	3.9	5.6	236	8.3
25	3.8	3.3	3.5	e3.7	2.7	2.5	2.4	14	3.9	5.5	79	12
26	3.7	3.2	4.5	3.6	2.9	2.8	2.4	13	3.9	6.6	14	259
27	3.8	3.0	4.3	3.6	3.2	3.1	2.6	12	3.9	9.1	5.2	464
28	3.7	4.2	4.1	3.6	3.2	3.1	3.0	9.7	3.9	6.3	4.7	210
29	3.8	4.3	3.8	3.6	---	3.0	5.0	9.6	3.8	5.5	4.5	35
30	3.8	4.2	3.7	3.6	---	3.1	6.6	10	3.9	5.1	4.5	7.1
31	3.9	---	3.6	3.6	---	3.2	---	9.0	---	4.8	5.4	---
TOTAL	180.2	104.4	106.3	136.0	90.5	86.7	96.3	355.9	148.1	140.2	2531.9	2053.5
MEAN	5.813	3.480	3.429	4.387	3.232	2.797	3.210	11.48	4.937	4.523	81.67	68.45
MAX	11	5.8	4.5	9.6	3.5	3.3	6.6	28	8.0	9.1	1110	464
MIN	3.7	3.0	2.7	3.5	2.7	2.3	2.4	4.0	3.8	3.6	4.4	4.5
AC-FT	357	207	211	270	180	172	191	706	294	278	5020	4070

CAL YR 2001 TOTAL 12156.5 MEAN 33.31 MAX 722 MIN 2.7 AC-FT 24110
WTR YR 2002 TOTAL 6030.0 MEAN 16.52 MAX 1110 MIN 2.3 AC-FT 11960

e Estimated

15226000 SOLOMON GULCH NEAR VALDEZ

LOCATION.--Lat 61°05'02", long 146°18'13", in NE$^1/_4$ SE$^1/_4$ SW$^1/_4$ sec. 16, T. 9 S., R. 6 W. (Valdez A-7 SE quad), Hydrologic Unit 19020201, at bridge crossing at mouth and 3.8 mi southeast across Port Valdez from Valdez.

DRAINAGE AREA.--19.7 mi^2.

PERIOD OF RECORD.--July to December 1948, October 1949 to September 1956, and September 1986 to current year.

GAGE.--Nonrecording gage. Elevation of gage is at sea level. July 9, 1948 to May 21, 1950, nonrecording gage, and May 22, 1950 to September 30, 1956, water-stage recorder at about present site and datum.

REMARKS.-- Records fair. Discharge data represent the flow at mouth which includes Solomon Gulch at top of falls (station 15225997), power plant tailrace (station 15225996), and all fish hatchery diversions. Water for power generation is diverted by a dam at Solomon Lake, 0.8 mi upstream. Water is diverted for the fish hatchery by a 24-in. penstock aeration system, and a 24-in. penstock line from the tailrace weir pool. An unaerated penstock and an 8-in. pipe for warm water supply are upstream. Additional water is diverted to the fish hatchery from Solomon Gulch bypass channel about 750 ft above gage, by means of a 12-in. diameter pipe. The fish hatchery discharges water directly into Port Valdez. Average daily diversion to fish hatchery for 2002 water year was 13.2 ft^3/s. Power generation began January 6, 1982.

COOPERATION.--Records of daily discharge diverted to the fish hatchery are furnished by Valdez Fisheries Development Association. Copper Valley Electric Association provides tables of hourly power output through the turbines and monthly storage values for Solomon Lake.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	101	77	86	66	59	85	61	200	171	173	226
2	216	108	75	89	61	54	79	65	197	178	217	233
3	226	103	86	71	62	57	93	82	206	190	213	149
4	222	107	81	59	67	61	82	98	213	227	221	203
5	210	113	89	60	59	57	76	93	212	227	230	246
6	196	111	80	66	58	55	75	99	210	228	232	240
7	199	103	76	63	65	59	75	102	203	233	228	230
8	224	96	e69	67	55	62	64	96	209	233	234	229
9	219	99	e66	77	74	62	66	91	217	225	243	176
10	224	92	e72	80	56	62	63	88	210	229	235	171
11	231	94	e67	80	53	64	65	84	206	216	245	188
12	227	99	e64	72	53	60	64	80	163	210	243	236
13	220	103	e72	75	54	60	63	90	200	224	241	602
14	220	108	73	71	55	60	76	93	143	226	236	629
15	156	92	57	68	59	62	66	109	165	224	232	362
16	112	94	59	70	58	61	64	115	203	231	220	246
17	108	97	61	75	55	62	60	126	203	236	242	232
18	99	106	67	69	56	64	70	123	167	235	246	232
19	98	103	64	70	67	54	69	115	182	229	183	229
20	100	104	61	69	65	60	60	70	219	230	220	235
21	101	96	56	77	60	61	62	185	221	225	622	226
22	98	92	59	e64	57	68	71	229	216	225	1330	225
23	97	88	58	65	54	65	73	234	219	231	740	234
24	97	82	56	e66	53	65	67	240	227	230	472	234
25	114	76	59	e70	57	68	61	229	223	231	314	237
26	120	82	64	68	57	94	59	180	223	230	263	486
27	114	87	70	73	55	98	61	213	219	224	248	688
28	115	90	78	64	59	90	62	215	182	220	238	423
29	113	88	78	62	---	103	62	213	216	234	235	249
30	102	81	72	65	---	90	66	211	214	230	237	239
31	100	---	74	60	---	78	---	214	---	232	234	---
TOTAL	4906	2895	2140	2171	1650	2075	2059	4243	6088	6914	9467	8535
MEAN	158.3	96.50	69.03	70.03	58.93	66.94	68.63	136.9	202.9	223.0	305.4	284.5
MAX	231	113	89	89	74	103	93	240	227	236	1330	688
MIN	97	76	56	59	53	54	59	61	143	171	173	149
AC-FT	9730	5740	4240	4310	3270	4120	4080	8420	12080	13710	18780	16930

ADJUSTED FOR CHANGE IN STORAGE IN SOLOMON LAKE

MEAN	103	36.0	13.7	18.1	e3.4	e0.0	1.3	234	351	265	448	290
AC-FT	6330	2140	840	1110	e190	e0.0	80	14420	20880	16310	27580	17230
CFSM	5.23	1.83	0.69	0.92	e0.17	e0.0	0.07	11.90	17.81	13.46	22.77	14.70
IN	6.03	2.04	0.80	1.06	e0.18	e0.0	0.08	13.74	19.90	15.54	26.28	16.42

e Estimated

15226000 SOLOMON GULCH NEAR VALDEZ—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2002, BY WATER YEAR (WY)#

MEAN	181.8	101.4	94.91	95.86	91.20	80.57	72.09	152.0	183.6	272.6	298.5	339.7
MAX	310	140	116	138	130	120	106	213	229	410	462	501
(WY)	1987	1989	1987	1995	1987	1987	1998	1993	1990	2001	1993	1989
MIN	97.2	77.1	69.7	69.5	64.3	5.08	26.2	103	145	177	152	152
(WY)	1997	1993	2002	2002	1997	1991	1991	1992	1988	1991	1996	1996

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1986 - 2002#	
ANNUAL TOTAL	60598.6		53143			
ANNUAL MEAN	166.0		145.6		164.8	
ANNUAL MEAN	*164.0		*147.0		*165.0	
HIGHEST ANNUAL MEAN					197	1990
LOWEST ANNUAL MEAN					125	1996
HIGHEST DAILY MEAN	944	Sep 5	1330	Aug 22	2270	Sep 24 1989
LOWEST DAILY MEAN	9.6	May 9	53	Feb 11	1.0	Apr 12 1989
ANNUAL SEVEN-DAY MINIMUM	40	May 8	55	Feb 11	2.3	Mar 24 1991
MAXIMUM PEAK FLOW					2270	Sep 24 1989
ANNUAL RUNOFF (AC-FT)	120200		105400		119400	
ANNUAL RUNOFF (AC-FT)	*119170		*107110		*119500	
ANNUAL RUNOFF (CFSM)	*8.32		*7.46		*7.46	
ANNUAL RUNOFF (IN)	*113.55		*102.06		*113.74	
10 PERCENT EXCEEDS	314		234		287	
50 PERCENT EXCEEDS	111		98		122	
90 PERCENT EXCEEDS	71		60		69	

PRIOR TO CONSTRUCTION OF SOLOMON GULCH HYDROELECTRIC PROJECT

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1956, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	124	58.9	18.3	13.3	10.4	8.82	10.9	102	370	385	322	260
MAX	304	131	35.6	20.9	12.2	11.1	18.3	224	544	514	442	574
(WY)	1953	1953	1950	1956	1954	1953	1953	1953	1953	1955	1956	1951
MIN	48.0	21.7	4.00	1.40	3.57	7.19	6.57	36.5	261	277	254	126
(WY)	1951	1951	1949	1951	1951	1951	1950	1955	1951	1950	1950	1955

SUMMARY STATISTICS		WATER YEARS 1948 - 1956#
ANNUAL MEAN	143	
HIGHEST ANNUAL MEAN	194	1953
LOWEST ANNUAL MEAN	126	1950
HIGHEST DAILY MEAN	1530	Sep 4 1951
LOWEST DAILY MEAN	.50	Dec 31 1950
ANNUAL SEVEN-DAY MINIMUM	1.0	Jan 10 1951
MAXIMUM PEAK FLOW	a2420	Sep 4 1951
MAXIMUM PEAK STAGE	b6.50	Sep 4 1951
INSTANTANEOUS LOW FLOW	c.00	Feb 20 1954
ANNUAL RUNOFF (AC-FT)	103900	
ANNUAL RUNOFF (CFSM)	7.28	
ANNUAL RUNOFF (INCHES)	98.89	
10 PERCENT EXCEEDS	396	
50 PERCENT EXCEEDS	49	
90 PERCENT EXCEEDS	8.0	

\# See Period of Record and Remarks. Values shown on this page are unadjusted for change in storage in Solomon Lake, unless otherwise noted

* Adjusted for change in storage in Solomon Lake

a From rating curve extended above 620 ft^3/s

b Site and datum then in use

c No flow sometime during period Feb. 20 to Mar. 3, 1954, caused by temporary storage upstream

15236900 WOLVERINE CREEK NEAR LAWING

LOCATION.--Lat 60°22′14″, long 148°53′48″, in NE$\frac{1}{4}$ NE$\frac{1}{4}$ sec. 10, T.3 N., R.3 E. (Seward B-6 quad), Kenai Peninsula Borough, Hydrologic Unit 19020202, on the left bank, about 0.1 mi downstream from terminus of Wolverine Glacier, 2.0 mi upstream from mouth, 16 mi east of Lawing, Alaska.

DRAINAGE AREA.--9.51 mi^2.

PERIOD OF RECORD.--October 1966 to September 1978, October 1980 to September 1981, May 1997 to September 1997, October 2000 to present.

GAGE.--Water-stage recorder. Elevation of gage is 1,200 ft above sea level from topographic map.

REMARKS.--Records are poor. Large fluctuations from ice melt and alternate damming and storage releases during the melt season. Stream flow modified by Wolverine Glacier, which covers 6.8 mi^2, more than 70% of the drainage basin. Rain gage and air temperature recorder at station, daily values of precipitation and air temperature available from computer files of the Alaska District. GOES satellite telemetry at station. A recording of air temperature , wind speed , and precipitation gage at 3,250 ft elevation. plus three snow and ice balance measurement sites are located in the basin. Combined snow, ice, and water balances of the basin are published in other reports of the Geological Survey.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 550 ft^3/s and maximum (*)
.

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jun 26	1045	638	3.03	Sep 14	0100	701	2.97
Jul 24	1630	1170*	3.55*				

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	e5.5	e1.1	e3.0	e0.00	e0.00	e0.00	e2.5	105	199	322	201
2	34	e4.5	e1.0	e2.5	e0.00	e0.00	e0.00	e3.0	110	211	320	249
3	68	e4.0	e1.0	e2.0	e0.00	e0.00	e0.00	e3.0	115	207	342	222
4	202	e3.0	e1.0	e2.0	e0.00	e0.00	e0.00	e3.5	122	237	360	182
5	267	e2.5	e1.0	e2.5	e0.00	e0.00	e0.10	e4.0	103	205	278	179
6	116	e2.5	e1.0	e3.0	e0.00	e0.00	e0.50	e4.5	90	184	293	184
7	70	e2.0	e1.0	e4.0	e0.00	e0.00	e0.50	e5.0	95	206	301	142
8	56	e2.0	e1.0	e2.5	e0.00	e0.00	e0.50	e5.0	87	212	282	120
9	87	e1.9	e1.0	e3.0	e0.00	e0.00	e0.50	e7.0	111	206	262	130
10	57	e1.8	e1.0	e4.0	e0.00	e0.00	e0.50	e8.0	83	237	227	121
11	39	e1.8	e0.50	e4.5	e0.00	e0.00	e0.50	e9.0	73	221	255	91
12	e22	e1.8	e0.50	e1.5	e0.00	e0.00	e0.50	e11	75	218	322	92
13	e20	e1.7	e0.50	e1.0	e0.00	e0.00	e0.50	e14	78	239	326	223
14	e16	e1.7	e0.50	e1.0	e0.00	e0.00	e0.50	e19	146	230	273	507
15	e16	e1.6	e0.10	e1.1	e0.00	e0.00	e1.0	e25	208	244	246	319
16	e16	e1.5	e0.00	e1.0	e0.00	e0.00	e1.0	e30	196	252	280	209
17	e18	e2.4	e0.00	e1.1	e0.00	e0.00	e1.0	e40	220	287	284	249
18	e15	e2.1	e0.00	e1.5	e0.00	e0.00	e1.0	e50	235	299	244	179
19	e15	e1.8	e0.00	e1.1	e0.00	e0.00	e1.0	e60	239	279	204	142
20	e14	e1.6	e0.00	e1.0	e0.00	e0.00	e1.0	e65	229	287	264	80
21	e13	e1.5	e0.00	e1.0	e0.00	e0.00	e1.0	e75	207	343	277	75
22	e11	e1.4	e0.00	e0.50	e0.00	e0.00	e1.0	82	218	373	260	84
23	e11	e1.4	e0.00	e0.50	e0.00	e0.00	e1.0	94	209	502	232	118
24	e10	e1.3	e0.10	e0.10	e0.00	e0.00	e1.0	107	267	679	247	201
25	e9.0	e1.3	e1.0	e0.00	e0.00	e0.00	e1.1	107	297	457	232	250
26	e8.0	e1.2	e5.0	e0.00	e0.00	e0.00	e1.1	107	386	347	201	261
27	e8.0	e1.2	e10	e0.00	e0.00	e0.00	e1.5	138	282	286	198	185
28	e8.0	e1.2	e6.0	e0.00	e0.00	e0.00	e1.5	137	250	278	215	139
29	e7.0	e1.1	e3.0	e0.00	---	e0.00	e1.5	143	263	312	184	116
30	e7.0	e1.1	e3.5	e0.00	---	e0.00	e2.0	154	228	323	220	115
31	e6.0	---	e5.5	e0.00	---	e0.00	---	125	---	338	189	---
TOTAL	1297.0	60.4	46.30	45.40	0.00	0.00	23.30	1637.5	5327	8898	8140	5365
MEAN	41.84	2.013	1.494	1.465	0.000	0.000	0.777	52.82	177.6	287.0	262.6	178.8
MAX	267	5.5	10	4.5	0.00	0.00	2.0	154	386	679	360	507
MIN	6.0	1.1	0.00	0.00	0.00	0.00	0.00	2.5	73	184	184	75
AC-FT	2570	120	92	90	0.00	0.00	46	3250	10570	17650	16150	10640
CFSM	4.40	0.21	0.16	0.15	0.00	0.00	0.08	5.55	18.7	30.2	27.6	18.8
IN.	5.07	0.24	0.18	0.18	0.00	0.00	0.09	6.41	20.84	34.81	31.84	20.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	36.57	7.226	2.533	1.496	1.109	0.894	1.174	22.06	137.8	292.8	339.9	196.6
MAX	114	27.4	5.48	2.71	2.00	2.00	2.27	89.3	262	375	494	351
(WY)	1970	1971	1970	1970	1970	1970	1981	1967	1967	1967	1981	1974
MIN	13.1	2.01	0.51	0.39	0.000	0.000	0.000	0.61	31.1	146	176	80.0
(WY)	1975	2002	2001	2001	2001	2001	2001	1971	1971	1997	1997	1970

\# See Period of Record; partial years used in monthly statistics
e Estimated

15236900 WOLVERINE CREEK NEAR LAWING—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1967 - 2002#	
ANNUAL TOTAL	37684.44		30839.90			
ANNUAL MEAN	103.2		84.49		88.84	
HIGHEST ANNUAL MEAN					123	1967
LOWEST ANNUAL MEAN					66.6	1970
HIGHEST DAILY MEAN	1930	Aug 28	679	Jul 24	1930	Aug 28 2001
LOWEST DAILY MEAN	a0.00	Jan 4	a0.00	Dec 16	a0.00	Dec 2 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 22	0.00	Dec 16	0.00	Dec 2 2000
MAXIMUM PEAK FLOW			1170	Jul 24	b4160	Aug 28 2001
MAXIMUM PEAK STAGE			3.55	Jul 24	6.28	Aug 21 1981
MAXIMUM PEAK STAGE					c14.70	Jun 9 1971
ANNUAL RUNOFF (AC-FT)	74750		61170		64360	
ANNUAL RUNOFF (CFSM)	10.9		8.88		9.34	
ANNUAL RUNOFF (INCHES)	147.41		120.64		126.93	
10 PERCENT EXCEEDS	304		265		310	
50 PERCENT EXCEEDS	2.5		5.0		5.0	
90 PERCENT EXCEEDS	0.00		0.00		0.60	

See Period of Record; partial years used in monthly statistics
a No flow most days during winter
b From rating curve extended above 1,290 ft^3/s
c From floodmarks, date approximate: flow over dense snow

15237730 GROUSE CREEK AT GROUSE LAKE OUTLET NEAR SEWARD

LOCATION.--Lat 60°11′54″, long 149°22′24″, in NE$^1/_4$ NE$^1/4$ NW$^1/_4$ sec. 12, T. 1 N., R. 1 W. (Seward A-7 NE quad), Kenai Peninsula Borough, Hydrologic Unit 19020202, on right bank, 200 ft downstream from Grouse Lake outlet, 0.2 mi upstream from Seward Highway, 7 mi north of Seward.

DRAINAGE AREA.--6.22 mi^2.

PERIOD OF RECORD.--June 1997 to present.

GAGE.--Water stage recorder and crest-stage gage. Elevation of gage is 250 ft above sea level from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Rain gage recorder at station. GOES satellite telemetry and phone modem at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	8.5	5.7	35	e8.5	e5.0	e4.0	15	52	10	6.2	5.5
2	26	8.5	5.6	31	e8.0	e4.5	e4.0	15	49	9.8	6.0	5.3
3	21	8.7	5.9	25	e8.0	e4.5	e4.0	14	47	9.7	5.9	5.0
4	28	8.2	5.6	21	e9.0	e4.0	e4.0	15	45	9.6	5.7	4.9
5	49	7.8	5.6	23	e9.0	e4.0	e4.0	16	43	9.2	5.6	4.9
6	46	7.6	5.7	32	e8.5	e4.0	e4.0	17	41	9.0	5.6	5.4
7	39	6.9	5.5	33	e8.0	e4.0	e4.0	18	39	8.7	5.7	5.8
8	32	6.5	5.1	28	e7.5	e4.0	e4.5	21	38	8.5	7.1	5.4
9	32	7.4	5.4	44	e7.5	e4.0	e4.5	28	36	8.3	7.4	e5.2
10	28	7.5	5.6	39	e7.0	e4.0	e4.5	32	35	8.2	6.7	e5.0
11	27	7.2	5.8	30	e7.0	e4.0	e4.5	34	35	7.9	7.2	e5.0
12	21	7.0	5.9	21	e6.5	e4.0	e4.5	35	32	7.7	8.3	e8.0
13	18	6.8	5.7	18	e6.5	e4.0	e4.5	39	31	7.7	7.8	e24
14	17	6.4	5.4	17	e6.5	e4.0	e5.0	45	29	7.4	6.8	e34
15	16	6.6	5.5	19	e7.5	e4.0	e5.0	49	32	7.3	6.4	e26
16	15	6.5	5.7	19	e7.5	e4.0	5.0	50	31	7.2	6.1	e16
17	14	7.1	5.5	22	e6.5	e4.0	5.0	56	28	7.0	5.8	e18
18	13	9.1	5.4	27	e6.0	e4.0	5.4	71	24	7.6	5.6	e14
19	12	8.2	5.4	21	e5.5	e3.5	6.0	88	20	7.6	5.4	e12
20	12	8.4	5.9	18	e5.0	e3.5	6.4	95	18	7.2	6.0	e11
21	13	7.9	6.6	14	e5.0	e3.5	6.5	92	16	6.8	6.2	e10
22	12	7.7	6.7	13	e5.5	e3.5	6.3	89	15	6.7	7.4	e10
23	11	7.7	6.6	14	e5.5	e3.5	6.3	82	14	6.6	7.5	e12
24	10	7.6	6.1	12	e5.0	e3.5	6.4	77	13	7.2	7.5	18
25	9.8	7.1	8.2	11	e5.0	e3.5	6.4	78	13	7.2	6.8	28
26	9.2	6.3	58	10	e5.0	e3.5	6.8	75	13	7.3	6.2	21
27	8.6	7.3	90	e10	e5.0	e3.5	7.6	71	12	8.5	5.9	20
28	9.0	6.7	47	e10	e5.0	e3.3	9.2	63	11	7.8	5.7	18
29	8.7	6.8	35	e10	---	e3.5	12	61	11	7.1	5.5	16
30	8.4	6.4	33	e9.5	---	e3.5	14	57	11	6.7	5.5	17
31	8.2	---	30	e9.5	---	e3.5	---	55	---	6.4	5.7	---
TOTAL	603.9	222.4	439.1	646.0	186.5	119.3	174.3	1553	834	243.9	197.2	390.4
MEAN	19.5	7.41	14.2	20.8	6.66	3.85	5.81	50.1	27.8	7.87	6.36	13.0
MAX	49	9.1	90	44	9.0	5.0	14	95	52	10	8.3	34
MIN	8.2	6.3	5.1	9.5	5.0	3.3	4.0	14	11	6.4	5.4	4.9
AC-FT	1200	441	871	1280	370	237	346	3080	1650	484	391	774
CFSM	3.13	1.19	2.28	3.35	1.07	.62	.93	8.05	4.47	1.26	1.02	2.09
IN.	3.61	1.33	2.63	3.86	1.12	.71	1.04	9.29	4.99	1.46	1.18	2.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	19.4	21.4	16.4	20.3	8.27	8.43	17.6	52.8	43.1	11.9	8.12	19.5
MAX	25.7	38.0	25.7	58.0	12.0	15.6	38.6	67.9	70.7	19.2	14.3	35.3
(WY)	2000	2001	2001	2001	2001	1998	1998	1998	1998	1998	2001	1997
MIN	11.8	7.41	8.89	5.23	3.34	2.69	5.81	43.5	12.6	6.11	6.04	6.66
(WY)	1998	2002	1999	1998	1999	1999	2002	2001	1997	1997	1999	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002#	
ANNUAL TOTAL	8776.0		5610.0			
ANNUAL MEAN	24.0		15.4		21.0	
HIGHEST ANNUAL MEAN					27.3	2001
LOWEST ANNUAL MEAN					15.4	2002
HIGHEST DAILY MEAN	205	Jan 19	95	May 20	205	Jan 19 2001
LOWEST DAILY MEAN	5.1	Dec 8	3.3	Mar 28	a2.1	Mar 9 1999
ANNUAL SEVEN-DAY MINIMUM	5.5	Dec 4	3.5	Mar 22	2.2	Mar 4 1999
MAXIMUM PEAK FLOW			114	Dec 27	269	Jan 19 2001
MAXIMUM PEAK STAGE			6.36	Dec 27	7.32	Jan 19 2001
INSTANTANEOUS LOW FLOW					b1.5	Apr 7 1999
ANNUAL RUNOFF (AC-FT)	17410		11130		15210	
ANNUAL RUNOFF (CFSM)	3.87		2.47		3.38	
ANNUAL RUNOFF (INCHES)	52.49		33.55		45.87	
10 PERCENT EXCEEDS	54		35		53	
50 PERCENT EXCEEDS	14		7.8		11	
90 PERCENT EXCEEDS	7.1		4.5		5.1	

\# See Period of Record, partial year used in monthly statistics
a Mar. 9 and 10, 1999
b From temporary blockage of channel upstream from gage
e Estimated

15238600 SPRUCE CREEK NEAR SEWARD

LOCATION.--Lat 60°04′10″, long 149°27′08″, in SW$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 21, T. 1 S., R. 1 W. (Seward A-7 quad), Kenai Peninsula Borough, Hydrologic Unit 19020202, on left bank 0.7 mi upstream from mouth at Resurrection Bay and 2.4 mi south of Seward.

DRAINAGE AREA.--9.26 mi^2.

PERIOD OF RECORD.--September 1967 to September 1979, annual maximum, water years 1980-90. October 1990 to current year.

REVISED RECORDS.--WDR AK-76-1: 1966-67(M), 1970(M), 1972(M). WDR AK-77-1: 1969(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 75 ft above sea level, from topographic map.

REMARKS.--Records fair, except estimated daily discharges and discharges below 7.0 ft^3/s, which are poor. Precipitation gage at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 21, 1966, reached a stage of 10.1 ft, from floodmarks; discharge, 3,090 ft^3/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Sep. 13	1415	2030*	6.93*	Sep. 24	2015	1530	6.61

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	14	9.5	34	6.2	2.6	0.00	27	157	170	91	88
2	73	13	8.8	26	5.8	2.2	0.00	23	151	152	89	93
3	76	13	8.3	21	5.6	1.9	0.00	22	156	155	90	88
4	162	12	8.0	20	7.7	2.1	0.00	24	162	146	86	69
5	244	12	7.7	26	6.6	e1.5	0.00	25	156	141	72	78
6	145	11	7.3	38	6.1	1.1	0.00	23	156	132	67	182
7	96	11	6.9	31	5.8	1.4	0.00	22	150	140	71	160
8	74	10	6.7	26	5.9	0.65	0.00	24	160	134	88	131
9	85	9.8	6.4	45	5.1	0.35	0.00	27	202	124	76	113
10	73	9.6	6.2	39	4.7	0.20	0.00	29	197	137	111	100
11	62	9.5	6.0	24	4.6	e0.10	0.00	32	192	152	152	95
12	51	9.3	5.7	18	e4.5	e0.10	0.00	34	164	127	139	191
13	46	9.0	e5.5	16	e4.0	e0.10	0.00	44	145	119	101	954
14	44	8.6	e5.0	19	e4.5	e0.10	0.00	51	195	115	80	811
15	39	8.3	e5.0	21	e3.5	e0.10	0.00	53	369	103	63	294
16	35	8.4	4.6	19	e3.5	e0.10	0.00	57	271	110	62	174
17	33	9.2	4.3	22	e3.0	0.00	0.00	79	234	143	66	146
18	31	11	4.0	23	e3.0	0.00	e0.50	118	228	178	60	119
19	27	12	3.7	19	e3.0	0.00	1.1	155	209	149	54	93
20	27	12	3.7	16	e2.5	0.00	2.6	158	163	151	88	75
21	27	13	3.7	14	e2.5	0.00	2.2	160	141	128	129	64
22	24	15	3.5	13	e2.0	0.00	2.1	154	135	125	254	56
23	20	17	3.1	12	e2.0	0.00	2.5	155	131	128	195	123
24	20	16	4.7	e11	1.6	0.00	3.0	158	131	160	135	735
25	18	14	8.7	e10	1.7	0.00	3.3	161	149	142	89	548
26	17	13	73	e9.5	2.4	0.00	4.1	162	184	226	72	339
27	16	12	67	9.0	2.1	0.00	5.9	170	141	167	73	220
28	16	12	29	8.0	2.9	0.00	11	152	133	107	73	140
29	15	11	22	7.5	---	0.00	23	165	166	117	79	104
30	14	10	25	7.0	---	0.00	32	169	201	103	95	104
31	14	---	24	6.5	---	0.00	---	165	---	97	116	---
TOTAL	1716	345.7	387.0	610.5	112.8	14.60	93.30	2798	5329	4278	3016	6487
MEAN	55.4	11.5	12.5	19.7	4.03	0.47	3.11	90.3	178	138	97.3	216
MAX	244	17	73	45	7.7	2.6	32	170	369	226	254	954
MIN	14	8.3	3.1	6.5	1.6	0.00	0.00	22	131	97	54	56
AC-FT	3400	686	768	1210	224	29	185	5550	10570	8490	5980	12870
CFSM	5.98	1.24	1.35	2.13	0.44	0.05	0.34	9.75	19.2	14.9	10.5	23.4
IN.	6.89	1.39	1.55	2.45	0.45	0.06	0.37	11.24	21.41	17.19	12.12	26.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2002, BY WATER YEAR (WY)#

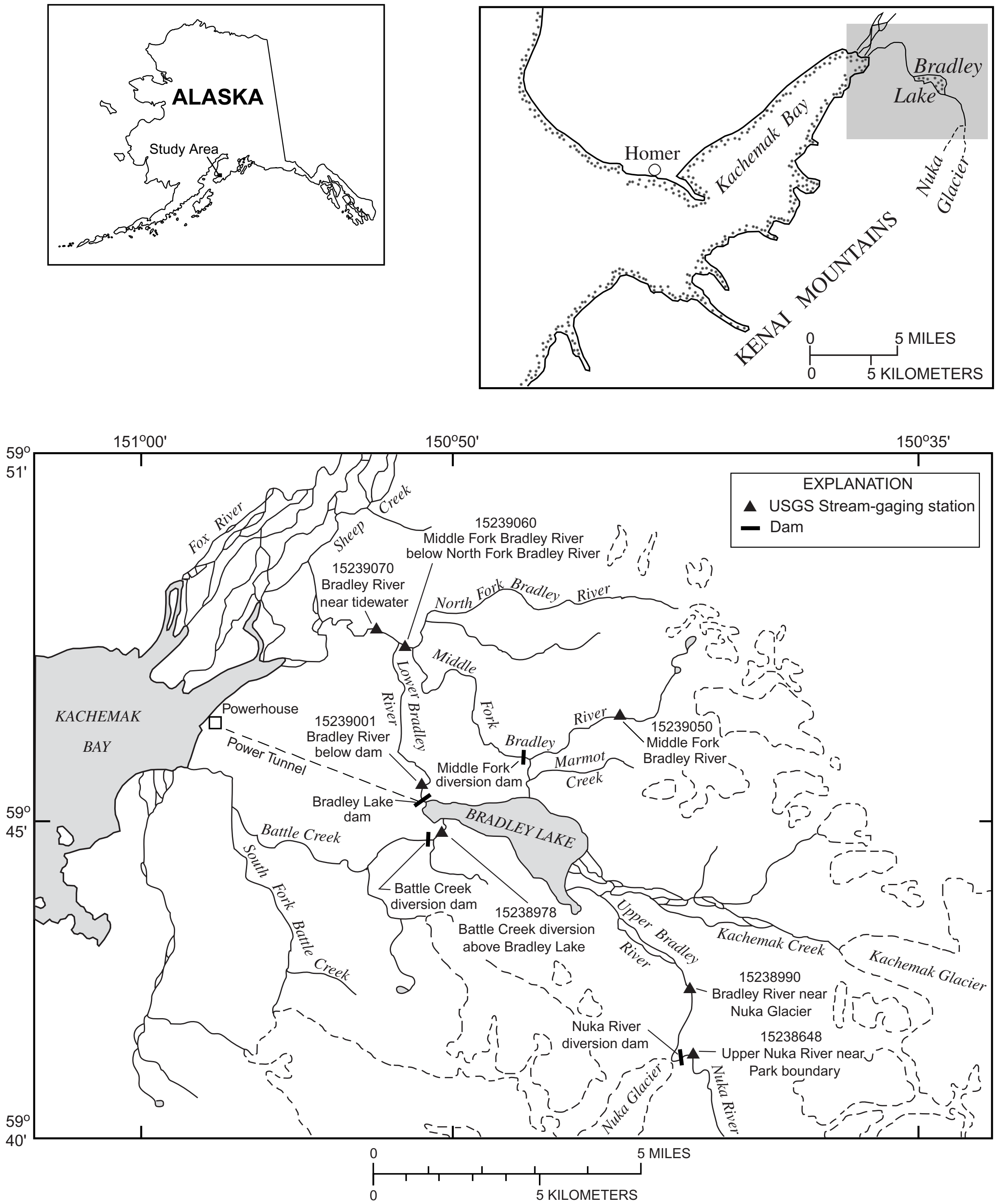
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	84.9	36.3	16.1	11.0	9.52	3.92	12.3	73.0	202	191	148	171
MAX	333	129	51.1	46.1	46.6	15.3	35.6	135	318	371	323	372
(WY)	1970	1977	1970	2001	1994	1970	1969	1993	2001	1977	1977	1995
MIN	17.0	9.40	3.52	0.65	0.000	0.000	0.12	30.6	116	104	56.9	48.8
(WY)	1997	1974	1997	1974	1972	1971	1972	1971	1972	1997	1969	2000

\# See Period of Record, partial year used in monthly statistics
e Estimated

15238600 SPRUCE CREEK NEAR SEWARD—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1967 - 2002#	
ANNUAL TOTAL	34411.0		25187.90			
ANNUAL MEAN	94.3		69.0		79.6	
HIGHEST ANNUAL MEAN					123	1977
LOWEST ANNUAL MEAN					50.6	1996
HIGHEST DAILY MEAN	655	Jul 20	954	Sep 13	1650	Oct 11 1969
LOWEST DAILY MEAN	2.8	Apr 2	a0.00	Mar 17	b0.00	Mar 1 1969
ANNUAL SEVEN-DAY MINIMUM	3.4	Mar 27	0.00	Mar 17	0.00	Mar 1 1969
MAXIMUM PEAK FLOW			2030	Jun 19	c13600	Oct 11 1986
MAXIMUM PEAK STAGE			6.93	Sep 13	d13.96	Oct 11 1986
INSTANTANEOUS LOW FLOW					0.00	Mar 1 1969
ANNUAL RUNOFF (AC-FT)	68250		49960		57630	
ANNUAL RUNOFF (CFSM)	10.2		7.45		8.59	
ANNUAL RUNOFF (INCHES)	138.24		101.19		116.73	
10 PERCENT EXCEEDS	275		162		206	
50 PERCENT EXCEEDS	24		24		33	
90 PERCENT EXCEEDS	5.5		0.10		1.4	

\# See Period of Record, partial year used in monthly statistics
a No flow Mar. 17 to Apr. 17
b No flow many days in water years 1969, 1971-76, 1992, 1996, 1999, and 2002
c Slope-area measurement of the release of water temporarily stored behind a debris-avalanche dam. Inflow into the ponded area was 5,420 ft^3/s, from a slope-area measurement made about 0.3 mi upstream at a site with a drainage area of 8.98 mi^2
d From floodmarks



Location of the Bradley Lake Hydroelectric Project area.

15238648 UPPER NUKA RIVER NEAR PARK BOUNDARY NEAR HOMER

LOCATION.--Lat 59°41′04″, long 150°42′12″ (Seldovia C-2 quad), Kenai Peninsula Borough, Hydrologic Unit 19020202, on left bank, 0.4 mi downstream from terminus of Nuka Glacier, 4.9 mi southeast of Bradley Lake, and 29 mi east of Homer, Alaska.

DRAINAGE AREA.--Indeterminate. Prior to July 29, 1990, drainage area was about 3 mi^2 and varied according to position of glacier terminus.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1980-81, prior to shift in glacier terminus; September 1984 to current year. Records prior to July 29, 1990, are not equivalent. Published as "Upper Nuka River near Homer" prior to October 1989. Low-flow records not equivalent prior to November 1987 because most low-flow measurements were made at site 0.5 mi downstream.

REVISED RECORDS.--WDR AK-89-1: 1985 (M), 1986-88.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,300 ft above sea level, from topographic map.

REMARKS.--Records fair except estimated daily discharges, which are poor. Water is diverted, 300 ft upstream from gage, into Bradley River drainage since July 29, 1990. Precipitation gage and air temperature recorder at station; daily values of precipitation and air temperature are available from the computer files of the Alaska District. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	e1.2	e.60	e.30	e.00	e.00	.00	e.00	e2.8	e80	38	23
2	3.6	e1.1	e.50	e.20	e.00	e.00	.00	e.00	e3.6	e70	36	28
3	4.8	e1.1	e.50	e.10	e.00	e.00	.00	e.00	e4.5	e70	43	25
4	6.7	e1.1	e.40	e.00	e.00	e.00	.00	e.00	e6.0	e70	34	23
5	6.1	e1.0	e.40	e.00	e.00	e.00	.00	e.00	e8.0	e70	31	25
6	5.2	e1.0	e.30	e.00	e.00	e.00	.00	e.00	e11	e70	32	26
7	4.1	e1.0	e.30	e.00	e.00	e.00	.00	e.00	e15	e70	36	23
8	3.4	e1.0	e.20	e.00	e.00	e.00	.00	e.00	e20	e70	36	21
9	e4.0	e.90	e.20	e.00	e.00	e.00	.00	e.00	e50	e80	29	20
10	e3.6	e.90	e.20	e.00	e.00	e.00	.00	e.00	e40	e80	27	18
11	2.8	e.90	e.10	e.00	e.00	.00	.00	e.00	e30	e70	32	15
12	e2.7	e.80	e.10	e.00	e.00	.00	.00	e.00	e25	e70	36	24
13	2.7	e.80	e.00	e.00	e.00	.00	.00	e.10	e20	e70	37	134
14	2.5	e.80	e.00	e.00	e.00	.00	.00	e.10	e30	e70	33	117
15	2.3	e.80	e.00	e.00	e.00	.00	.00	e.10	e60	e70	25	61
16	4.2	e.80	e.00	e.00	e.00	.00	.00	e.20	e70	e70	27	49
17	3.0	e1.0	e.00	e.00	e.00	.00	.00	e.20	e70	e70	30	33
18	2.3	e2.5	e.00	e.00	e.00	.00	.00	e.20	e70	77	30	24
19	e2.1	e3.0	e.00	e.00	e.00	.00	.00	e.20	e60	84	26	22
20	e2.0	e2.4	e.00	e.00	e.00	.00	.00	e.30	e60	88	29	19
21	e1.8	e2.0	e.00	e.00	e.00	.00	.00	e.30	e60	87	37	15
22	e1.7	e1.6	e.00	e.00	e.00	.00	.00	e.30	e60	73	47	15
23	e1.6	e1.4	e.00	e.00	e.00	.00	.00	e.40	e60	61	39	31
24	e1.5	e1.2	e.00	e.00	e.00	.00	.00	e.50	e60	62	29	87
25	e1.3	e1.1	e.00	e.00	e.00	.00	.00	e.60	e60	48	25	105
26	e1.2	e.90	e.20	e.00	e.00	.00	.00	e.70	e70	61	22	93
27	e1.1	e.80	e.20	e.00	e.00	.00	.00	e.90	e90	58	22	55
28	e1.1	e.70	e.10	e.00	e.00	.00	.00	e1.1	e70	43	22	41
29	e1.2	e.70	e.10	e.00	---	.00	.00	e1.3	e70	43	22	34
30	e1.2	e.60	e.30	e.00	---	.00	.00	e1.7	e70	49	24	28
31	e1.2	---	e.40	e.00	---	.00	---	e2.2	---	46	23	---
TOTAL	87.4	35.10	5.10	0.60	0.00	0.00	0.00	11.40	1325.9	2100	959	1234
MEAN	2.82	1.17	.16	.019	.000	.000	.000	.37	44.2	67.7	30.9	41.1
MAX	6.7	3.0	.60	.30	.00	.00	.00	2.2	90	88	47	134
MIN	1.1	.60	.00	.00	.00	.00	.00	.00	2.8	43	22	15
AC-FT	173	70	10	1.2	.00	.00	.00	23	2630	4170	1900	2450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.97	1.57	.13	.033	.13	.000	.003	.66	28.9	39.8	18.7	13.0
MAX	5.86	6.45	.83	.16	1.56	.000	.015	2.73	209	272	53.1	41.1
(WY)	2001	1998	2000	1995	1994	1991	1991	1996	1999	1999	1998	2002
MIN	.000	.000	.000	.000	.000	.000	.000	.000	1.06	2.96	.97	1.72
(WY)	1992	1992	1991	1991	1991	1991	1992	1998	1992	1991	1991	1991

\# See Period of Record and Remarks. Not adjusted to account for changes in drainage area
e Estimated

15238648 UPPER NUKA RIVER NEAR PARK BOUNDARY NEAR HOMER—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002#	
ANNUAL TOTAL	935.90		5758.50			
ANNUAL MEAN	2.56		15.8		8.87	
HIGHEST ANNUAL MEAN					a45.6	1999
LOWEST ANNUAL MEAN					1.09	1991
HIGHEST DAILY MEAN	200	Jul 19	134	Sep 13	335	Jul 4 1999
LOWEST DAILY MEAN	b.00	Jan 3	c.00	Dec 13	d.00	Nov 3 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 3	.00	Dec 13	.00	Nov 3 1990
MAXIMUM PEAK FLOW			219	Sep 24	451	Jul 4 1999
MAXIMUM PEAK STAGE			3.58	Sep 24	4.30	Jul 4 1999
ANNUAL RUNOFF (AC-FT)	1860		11420		6420	
10 PERCENT EXCEEDS	6.3		61		13	
50 PERCENT EXCEEDS	.20		.80		.15	
90 PERCENT EXCEEDS	.00		.00		.00	

PRIOR TO REGULATION AND DIVERSION OF NUKA RIVER

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1989, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	47.6	7.01	2.83	1.48	.49	.21	.22	23.8	34.7	141	180	131
MAX	72.0	24.9	9.00	5.79	2.24	.87	.72	117	81.2	307	432	321
(WY)	1987	1987	1987	1985	1985	1985	1985	1986	1989	1989	1989	1989
MIN	3.84	.024	.000	.000	.000	.000	.000	.016	.76	6.41	12.1	7.08
(WY)	1989	1989	1989	1989	1988	1988	1988	1987	1987	1988	1986	1988

SUMMARY STATISTICS	WATER YEARS 1985 - 1989#	
ANNUAL MEAN	47.9	
HIGHEST ANNUAL MEAN	96.2	1989
LOWEST ANNUAL MEAN	8.60	1988
HIGHEST DAILY MEAN	1240	Aug 25 1989
LOWEST DAILY MEAN	f.00	May 6 1987
ANNUAL SEVEN-DAY MINIMUM	.00	May 6 1987
INSTANTANEOUS PEAK FLOW	g1630	Aug 25 1989
INSTANTANEOUS PEAK STAGE	5.47	Aug 25 1989
ANNUAL RUNOFF (AC-FT)	34700	
10 PERCENT EXCEEDS	183	
50 PERCENT EXCEEDS	1.1	
90 PERCENT EXCEEDS	.00	

\# See Period of Record and Remarks. Not adjusted to account for changes in drainage area
a Diversion dam failed Jun. 17, 1999; repaired Sep. 25, 1999
b From Jan. 3 - 13, Jan. 23 to June 2 and Dec. 13 - 25
c From Dec. 13 - 25 and Jan. 4 to May 12
d No flow most days during winter
f No flow many days each year since 1987 during winter through Jun. See Period of Record for remark on low-flow records
g From rating curve extended above 380 ft^3/s

15238978 BATTLE CREEK DIVERSION ABOVE BRADLEY LAKE NEAR HOMER

LOCATION.--Lat 59°44′45″, long 150°50′22″, in SW$^1/_4$ NE$^1/_4$ sec. 17, T. 5 S., R. 9 W. (Seldovia C-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on right bank 0.6 mi upstream from Bradley Lake and 25 mi east of Homer.

DRAINAGE AREA.--0.95 mi^2.

PERIOD OF RECORD.--August 1992 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,350 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. The entire flow of Battle Creek at the station has been diverted into Bradley Lake since October 1991.

EXTREMES FOR CURRENT YEAR.-- Peak discharges greater than base discharge of 50 ft^3/s and maximums (*).

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sept. 13	0845	73	6.48	Sept. 24	1430	90*	6.74*

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	0.0	e0.0	e0.0	0.0	0.0	0.0	e0.10	11	18	4.8	2.6
2	2.4	0.0	e0.0	e0.0	0.0	0.0	0.0	e0.10	9.3	16	5.1	2.1
3	5.7	0.0	e0.0	e0.0	0.0	0.0	0.0	e0.10	8.0	12	5.0	1.9
4	15	0.0	e0.0	e0.0	0.0	0.0	0.0	e0.10	8.1	14	4.9	1.6
5	14	0.0	e0.0	e0.0	0.0	0.0	0.0	e0.10	8.1	12	4.9	2.7
6	7.6	0.0	e0.0	e0.0	0.0	0.0	0.0	0.16	6.5	19	6.7	3.2
7	4.9	0.0	e0.0	e0.0	0.0	0.0	0.0	0.17	6.8	21	5.7	2.7
8	3.6	e0.0	e0.0	e0.0	0.0	0.0	0.0	0.24	9.1	13	4.4	2.2
9	5.8	e0.0	e0.0	e0.10	0.0	0.0	0.0	0.37	24	11	4.6	1.6
10	4.7	0.0	e0.0	0.28	0.0	0.0	0.0	0.33	16	11	5.2	1.4
11	2.7	0.0	e0.0	0.14	0.0	0.0	0.0	0.27	11	9.2	5.7	1.1
12	2.2	0.0	e0.0	0.03	0.0	0.0	0.0	0.30	8.4	11	6.2	1.7
13	1.9	0.0	e0.0	0.0	0.0	0.0	0.0	0.37	6.9	15	5.9	52
14	1.8	0.0	e0.0	0.0	0.0	0.0	0.0	0.48	8.4	12	4.6	28
15	1.6	0.0	e0.0	0.0	0.0	0.0	0.0	0.61	14	10	3.4	11
16	1.3	0.0	e0.0	0.0	0.0	0.0	0.0	0.71	17	8.6	3.1	6.0
17	0.95	0.0	e0.0	0.07	0.0	0.0	0.0	0.92	16	8.6	3.0	14
18	e0.80	0.0	e0.0	0.25	0.0	0.0	0.0	1.5	15	13	2.9	5.8
19	e0.60	0.13	e0.0	0.15	0.0	0.0	0.0	2.2	14	12	2.8	3.8
20	e0.40	0.32	e0.0	0.07	0.0	0.0	0.0	2.8	10	11	6.9	2.7
21	e0.30	0.57	e0.0	0.01	0.0	0.0	0.0	3.4	9.5	15	5.6	2.0
22	e0.20	0.51	e0.0	0.0	0.0	0.0	0.0	4.7	8.7	22	3.8	1.7
23	e0.15	0.37	e0.0	0.0	0.0	0.0	0.0	8.3	10	18	3.4	4.6
24	e0.10	0.15	e0.0	0.0	0.0	0.0	0.0	13	14	14	2.6	43
25	e0.08	0.03	e0.0	0.0	0.0	0.0	0.0	9.6	12	8.9	2.3	20
26	e0.06	0.0	e0.0	0.0	0.0	0.0	0.0	8.5	12	9.7	2.1	9.4
27	e0.04	0.0	e0.0	0.0	0.0	0.0	0.0	11	16	7.3	1.7	5.8
28	e0.02	0.0	e0.0	0.0	0.0	0.0	0.0	12	12	5.5	1.5	3.8
29	e0.02	0.0	e0.0	0.0	---	0.0	e0.10	11	11	4.9	1.6	3.2
30	0.0	0.0	e0.0	0.0	---	0.0	e0.10	12	15	4.6	2.4	2.9
31	0.0	---	e0.0	0.0	---	0.0	---	13	---	5.2	2.5	---
TOTAL	81.62	2.08	0.0	1.10	0.0	0.0	0.20	118.43	347.8	372.5	125.3	244.5
MEAN	2.633	0.069	0.000	0.035	0.000	0.000	0.007	3.820	11.59	12.02	4.042	8.150
MAX	15	0.57	0.00	0.28	0.00	0.00	0.10	13	24	22	6.9	52
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	6.5	4.6	1.5	1.1
AC-FT	162	4.1	0.00	2.2	0.00	0.00	0.4	235	690	739	249	485
CFSM	2.77	0.07	0.00	0.04	0.00	0.00	0.01	4.02	12.2	12.6	4.25	8.58
IN.	3.20	0.08	0.00	0.04	0.00	0.00	0.01	4.64	13.62	14.59	4.91	9.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.573	0.958	0.169	0.040	0.113	0.002	0.127	2.651	13.97	11.58	5.886	7.139
MAX	5.84	2.83	1.22	0.19	0.48	0.015	0.67	7.67	23.5	20.1	14.5	16.9
(WY)	1994	1998	2000	1995	1994	1998	1997	1993	1998	2001	2001	1995
MIN	0.21	0.009	0.000	0.000	0.000	0.000	0.000	0.21	5.55	1.83	0.094	0.91
(WY)	1997	2000	1996	1996	1996	1994	1999	1999	1996	1996	1996	1992

\# See Period of Record and Remarks, partial years used in monthly statistics
e Estimated

15238978 BATTLE CREEK DIVERSION ABOVE BRADLEY LAKE NEAR HOMER—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002#	
ANNUAL TOTAL	1912.39		1293.53			
ANNUAL MEAN	5.239		3.544		3.828	
HIGHEST ANNUAL MEAN					5.34	1998
LOWEST ANNUAL MEAN					1.23	1996
HIGHEST DAILY MEAN	57	Jul 19	52	Sep 13	104	Sep 20 1995
LOWEST DAILY MEAN	a0.00	Jan 3	a0.00	Oct 30	b0.00	Jun 3 1992
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 23	0.00	Oct 30	0.00	Jan 11 1993
MAXIMUM PEAK FLOW			90	Sep 24	134	Sep 20 1995
MAXIMUM PEAK STAGE			6.74	Sep 24	7.32	Sep 20 1995
MAXIMUM PEAK STAGE					c8.09	May 20 1999
ANNUAL RUNOFF (AC-FT)	3790		2570		2770	
ANNUAL RUNOFF (CFSM)	5.52		3.73		4.03	
ANNUAL RUNOFF (INCHES)	74.89		50.65		54.74	
10 PERCENT EXCEEDS	18		12		13	
50 PERCENT EXCEEDS	0.03		0.10		0.30	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

\# See Period of Record and Remarks, partial years used in monthly statistics
a No flow many days during the winter
b No flow many days most winters, and Jun. 3, 1992 (observation), Aug. 4, Aug. 5, Aug. 9, and Aug. 14 to Sept. 11, 1996
c Backwater from ice jam

15238990 UPPER BRADLEY RIVER NEAR NUKA GLACIER NEAR HOMER

LOCATION.--Lat 59°42′02″, long 150°42′09″, (Seldovia C-2 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on left bank 1.0 mi downstream from Nuka Glacier terminus, 2.7 mi upstream from confluence with Kachemak Creek, 3.7 mi southeast of Bradley Lake, and 29 mi east of Homer. Prior to July 22, 1991 at site 0.2 mi downstream.

DRAINAGE AREA.--Indeterminate. Prior to July 29, 1990, drainage area was about 10 mi^2 and varied according to position of glacier terminus.

PERIOD OF RECORD.--October 1979 to current year. Prior to October 1989, published as Upper Bradley River near Homer.

REVISED RECORDS.--WDR AK-86-1: 1980-85, WRD AK-96-1: 1991-95.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,250 ft above sea level, from topographic map. Prior to July 22, 1991 at site 0.2 mi downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow diverted from Upper Nuka River into Upper Bradley River drainage since July 29, 1990. Air temperature recorder at station, daily values of air temperature available from the computer files of the Alaska District. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	e13	e2.6	e1.8	e.20	e.00	e.00	e.20	e65	300	432	334
2	75	e12	e2.5	e1.6	e.20	e.00	e.00	e.20	e80	284	458	444
3	211	e11	e2.3	e1.4	e.00	e.00	e.00	e.40	e95	273	446	361
4	500	e10	e2.1	e1.2	e.00	e.00	e.00	e.40	e110	309	419	310
5	467	e9.5	e2.0	e1.0	e.00	e.00	e.00	e.40	e140	322	376	399
6	271	e9.0	e1.8	e1.0	e.00	e.00	e.00	e.40	161	322	426	392
7	183	e8.5	e1.4	e.80	e.00	e.00	e.00	e.60	170	328	422	353
8	142	e8.0	e1.2	e.80	e.00	e.00	e.00	e.60	201	301	383	282
9	147	e7.5	e1.0	e.60	e.00	e.00	e.00	e.80	262	284	393	257
10	99	e7.0	e1.0	e.60	e.00	e.00	e.00	e1.0	207	289	416	223
11	72	e6.5	e.80	e.40	e.00	e.00	e.00	e1.0	178	314	486	174
12	61	e6.5	e.60	e.20	e.00	e.00	e.00	e1.5	146	306	533	446
13	48	e6.0	e.60	e.20	e.00	e.00	e.00	e1.5	132	290	536	1320
14	42	e5.5	e.40	e.20	e.00	e.00	e.00	e2.0	187	271	429	902
15	37	e5.5	e.40	e.20	e.00	e.00	e.00	e2.0	253	291	382	564
16	34	e5.0	e.20	e.20	e.00	e.00	e.00	e2.5	283	294	406	352
17	32	e4.8	e.20	e.20	e.00	e.00	e.00	e3.0	278	333	391	388
18	29	e5.0	e.00	e1.0	e.00	e.00	e.00	e4.0	290	355	357	241
19	27	e5.5	e.00	e.80	e.00	e.00	e.00	e5.0	278	357	327	199
20	e25	e6.0	e.00	e.60	e.00	e.00	e.00	e6.5	233	380	473	142
21	e23	e7.0	e.00	e.60	e.00	e.00	e.00	e8.0	227	411	565	112
22	e21	e7.0	e.00	e.40	e.00	e.00	e.00	e10	233	521	656	145
23	e20	e6.0	e.00	e.40	e.00	e.00	e.00	e12	236	581	534	417
24	e19	e5.5	e.00	e.20	e.00	e.00	e.00	e14	250	610	423	1100
25	e18	e4.8	e1.0	e.20	e.00	e.00	e.00	e17	265	504	361	832
26	e19	e4.4	e3.0	e.20	e.00	e.00	e.00	e21	276	523	303	643
27	e20	e4.0	e2.8	e.20	e.00	e.00	e.00	e26	361	494	278	431
28	e20	e3.5	e2.6	e.20	e.00	e.00	e.20	e32	293	431	304	338
29	e18	e3.2	e2.3	e.20	---	e.00	e.20	e38	286	499	294	270
30	e16	e2.9	e2.1	e.20	---	e.00	e.20	e46	319	468	339	216
31	e15	---	e2.0	e.20	---	e.00	---	e55	---	447	319	---
TOTAL	2830	200.1	36.90	17.80	0.40	0.00	0.60	313.00	6495	11692	12867	12587
MEAN	91.3	6.67	1.19	.57	.014	.000	.020	10.1	216	377	415	420
MAX	500	13	3.0	1.8	.20	.00	.20	55	361	610	656	1320
MIN	15	2.9	.00	.20	.00	.00	.00	.20	65	271	278	112
AC-FT	5610	397	73	35	.8	.00	1.2	621	12880	23190	25520	24970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	73.7	14.8	2.65	.56	.39	.000	.073	19.9	220	404	442	362
MAX	213	38.4	19.4	4.75	4.35	.000	.55	93.6	363	763	597	851
(WY)	1994	1998	2000	2001	1994	1991	1993	1993	2001	2001	1993	1995
MIN	12.9	2.39	.000	.000	.000	.000	.000	.008	94.4	106	293	117
(WY)	1997	2000	1995	1991	1991	1991	1992	1998	1999	1999	1998	1992

\# See Period of Record and Remarks. Not adjusted to account for changes in drainage area
e Estimated

15238990 UPPER BRADLEY RIVER NEAR NUKA GLACIER NEAR HOMER—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002#	
ANNUAL TOTAL	66068.30		47039.80			
ANNUAL MEAN	181		129		129	
HIGHEST ANNUAL MEAN					181	2001
LOWEST ANNUAL MEAN					91.1	1998
HIGHEST DAILY MEAN	1330	Jul 19	1320	Sep 13	a3600	Sep 21 1995
LOWEST DAILY MEAN	b.00	Feb 9	c.00	Dec 18	d.00	Dec 5 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 9	.00	Dec 18	.00	Dec 5 1990
MAXIMUM PEAK FLOW			1970	Sep 24	f4100	Sep 20 1995
MAXIMUM PEAK STAGE			13.78	Sep 24	g15.10	Sep 20 1995
ANNUAL RUNOFF (AC-FT)	131000		93300		93500	
10 PERCENT EXCEEDS	672		418		420	
50 PERCENT EXCEEDS	6.5		5.5		5.2	
90 PERCENT EXCEEDS	.00		.00		.00	

PRIOR TO DIVERSION FROM UPPER NUKA RIVER

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1989, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	106	22.8	10.2	4.67	1.74	1.35	1.29	38.3	161	290	349	292
MAX	279	75.7	54.6	15.1	4.82	6.50	4.67	92.0	270	458	595	673
(WY)	1980	1980	1987	1981	1981	1984	1981	1986	1988	1981	1986	1982
MIN	26.3	2.60	.50	.000	.000	.000	.000	.33	102	149	133	63.1
(WY)	1986	1988	1989	1989	1989	1989	1986	1987	1985	1985	1985	1983

SUMMARY STATISTICS	WATER YEARS 1980 - 1989 #	
ANNUAL MEAN	107	
HIGHEST ANNUAL MEAN	154	1986
LOWEST ANNUAL MEAN	49.6	1985
HIGHEST DAILY MEAN	1890	Aug 27 1986
LOWEST DAILY MEAN	d.00	Dec 25 1979
ANNUAL SEVEN-DAY MINIMUM	.00	Dec 25 1979
INSTANTANEOUS PEAK FLOW	h2530	Oct 10 1986
INSTANTANEOUS PEAK STAGE	i9.86	Oct 10 1986
ANNUAL RUNOFF (AC-FT)	77650	
10 PERCENT EXCEEDS	338	
50 PERCENT EXCEEDS	15	
90 PERCENT EXCEEDS	.50	

\# See Period of Record and Remarks. Not adjusted to account for changes in drainage area
a Estimated discharge, but may have been higher during period of no gage-height record, Sep. 21 to Sep. 22, 1995
b From Feb. 9 to May 14 and Dec. 18 - 24
c From Dec. 18 - 24 and Feb. 3 to Apr. 27
d No flow in winter most years
f From rating curve extended above 400 ft^3/s on basis of slope-area measurement of peak flow
g From floodmarks
h From rating curve extended above 440 ft^3/s on basis of slope-area measurement of peak flow
i Site and datum then in use

15239000 BRADLEY RIVER NEAR HOMER

LOCATION.--Lat 59°45′30″, long 150°51′02″, in $SW^1/_4$ $SE^1/_4$ $NW^1/_4$ sec. 8, T. 5 S., R. 9 W. (Seldovia D-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, about 1,300 ft downstream from Bradley Lake dam, 3.3 mi upstream from confluence with Middle Fork Bradley River, and 26 mi northeast of Homer.

DRAINAGE AREA.--About 65 mi^2 since July and August 1990, when additional water was diverted into the basin. Prior drainage area was about 54 mi^2.

PERIOD OF RECORD.--July to August 1955, October 1957 to September 1990 (discharge). October 1991 to current year (beginning month reservoir contents and monthly discharges).

REVISED RECORDS.--WSP 2136: 1960(M), 1965. WDR AK-77-1: 1958, 1961, 1963(M), 1966, 1967, 1970, 1972, 1974, 1976.

GAGE.--Nonrecording gage. Datum of gage is 1,054.16 ft above sea level (levels of dam-site survey for Alaska Power Authority). Totalizing flow meters on penstocks to two turbines in Bradley powerhouse. Lake-level sensor. July 13-22, 1955, non-recording lake gage at site 1 mi upstream and July 23 to August 5, 1955, at site 3 mi upstream at different datum. Prior to November 4, 1980, and April 29 to October 5, 1986, water-stage recorder at site 500 ft upstream at different datum and November 4, 1980 to April 28, 1986, water-stage recorder 1,300 ft upstream at different datum. April 29, 1986 to September 30, 1989, water-stage recorder at present site and datum.

REMARKS.--Reservoir is formed by an earthen dam with impermeable core and concrete face at the outlet of Bradley Lake. Construction began November 1986 and was completed in April 1991. Total and usable capacities below the spillway crest of 1,180 ft are 547,500 and 284,200 acre-ft, respectively. Reservoir is used for power. Discharge released through turbines is computed using totalizing flow meters; release flow enters Kachemak Bay and is not returned to stream. Spill, dam seepage, and fish-water bypass are measured at Bradley River below Dam (15239001) gage. Reservoir capacity table furnished by the Alaska Energy Authority.

COOPERATION.--Reservoir elevations and power generation discharge provided by the Homer Electric Association, for the Alaska Energy Authority.

AVERAGE DISCHARGE.--43 years (water years 1958 to 1989, and 1992 to current year), 454 ft^3/s, 328,900 acre-ft/yr. The inflow diversions from Middle Fork Bradley River and Battle Creek into the reservoir are excluded. Flow diverted from Upper Nuka River into Upper Bradley since July 29, 1990 was not measurable and is included in the following tabulations.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 549,400 acre-ft, October 1, 1991, elevation 1180.5 ft; minimum contents observed, 246,600 acre-ft, April 23, 1997, elevation 1069.3 ft. Maximum computed discharge, 8,800 ft^3/s, October 10, 1986, gage height, 10.90 ft from floodmarks, site and datum then in use. Maximum discharge, September 21-22, 1995 was probably higher, as indicated by extremes for period of record on these dates for other sites in the Bradley River basin; minimum daily, about 9.0 ft^3/s, December 7, 1986, result of power tunnel construction at dam site.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 529,400 acre-ft, October 1, elevation 1175.4 ft; minimum contents observed, 333,900 acre-ft, May 21 and May 22, elevation 1113.7 ft.

BEGINNING OF MONTH RESERVOIR ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS, IN ACRE FEET
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ELEVATION	CONTENTS	CHANGE IN CONTENTS
Oct 1	1,175.4	529,400	--
Nov 1	1,169.5	508,300	-21,100
Dec 1	1,164.5	490,500	-17,800
Jan 1	1,157.8	466,700	-23,800
Feb 1	1,151.9	445,800	-20,900
Mar 1	1,142.5	415,900	-29,900
Apr 1	1,132.7	385,700	-30,200
May 1	1,120.5	350,800	-34,900
Jun 1	1,117.0	342,000	-8,800
Jul 1	1,126.5	366,600	24,600
Aug 1	1,142.3	415,300	48,700
Sep 1	1,152.0	446,100	30,800
Oct 1	1,164.3	489,800	43,700
		CAL YR 2001	+97,000
		WTR YR 2002	-39,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
MEAN VALUES

MONTH	CHANGE IN CONTENTS	POWER GENERATION	BRADLEY RIVER BELOW DAM 15239001	MIDDLE FORK BRADLEY RIVER 15239050	BATTLE CREEK DIVERSION 15238978	BRADLEY RIVER 15239000
OCT	-343	758	26.4	38.6	2.63	400
NOV	-299	388	31.4	8.47	0.069	112
DEC	-387	496	40.4	6.11	0.000	143
JAN	-340	424	40.4	5.47	0.035	119
FEB	-538	596	44.0	3.70	0.000	97.9
MAR	-491	485	42.9	3.34	0.000	33.1
APR	-586	555	39.2	2.91	0.007	20.0e
MAY	-143	681	11.3	25.0	3.82	505
JUN	+413	751	3.10	104	11.6	1,050
JUL	+792	649	17.2	177	12.0	1,270
AUG	+501	598	55.8	116	4.04	1,040
SEP	+734	575	55.4	100	8.15	1,260
CAL YR 2001	+130	477	27.1	61.1	5.24	569
WTR YR 2002	-57	580	33.9	49.6	3.54	504

e Estimated

15239001 BRADLEY RIVER BELOW DAM NEAR HOMER

LOCATION.--Lat 59°45'30", long 150°51'02", in $SW^1/_4$ $SE^1/_4$ $NW^1/_4$ sec. 8, T. 5 S., R. 9 W. (Seldovia D-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on right bank about 1,300 ft downstream from Bradley Lake Dam, 3.3 mi upstream from Middle Fork Bradley River, and 26 mi northeast of Homer.

DRAINAGE AREA.--About 66 mi^2 since October 1991, when additional water was diverted into the basin. Prior drainage area was about 54 mi^2.

PERIOD OF RECORD.--October 1989 to current year. Prior to 1990 water year, records are equivalent to "Bradley River near Homer" (station no. 15239000).

GAGE.--Water-stage recorder. Datum of gage is 1,054.16 ft above sea level (levels of dam-site survey for Alaska Power Authority).

REMARKS.--No estimated daily discharges. Records fair. Nuka River and Middle Fork Bradley River were diverted into Bradley Lake, upstream from dam, beginning July 29 and August 7, 1990, respectively. Reservoir began filling April 26, 1991. Water has been diverted out of the basin through the turbines since hydro-power generation began on June 28, 1991. Battle Creek was diverted into reservoir in October 1991. Rain gage and air temperature recorder at station, daily values of precipitation and air temperature available from the computer files of the Alaska District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,450 ft^3/s September 21, 1990, gage height, 7.11 ft; minimum, 0.00 ft^3/s, from rating curve extended below 0.18 ft^3/s, most likely ponded water, but no measurable flow, June 9 and June 10, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95 ft^3/s, August 24, gage height, 3.09 ft; minimum, 0.02 ft^3/s, July 8., gage-height 1.62 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	29	38	42	43	43	42	9.9	4.0	0.32	39	79
2	5.3	27	40	40	43	43	42	4.5	3.9	0.32	40	81
3	5.9	27	40	40	43	42	41	9.2	3.6	0.11	40	81
4	5.9	27	40	40	43	42	41	18	3.6	0.09	40	81
5	5.6	27	40	40	43	42	41	26	3.5	0.08	46	81
6	5.5	27	40	41	42	42	41	27	3.4	0.06	48	81
7	5.5	27	40	40	42	42	41	23	3.6	0.05	48	81
8	8.0	31	40	42	43	42	39	27	3.8	0.04	51	81
9	6.0	34	40	41	42	43	40	23	4.1	16	50	81
10	19	33	40	41	42	45	40	19	3.5	21	51	81
11	47	33	40	40	44	45	41	27	3.3	15	50	81
12	41	33	40	40	42	45	41	28	3.2	13	50	83
13	34	33	40	40	50	45	41	23	3.1	13	49	60
14	29	33	43	40	46	44	41	8.7	3.3	16	49	46
15	22	33	40	40	46	44	41	4.7	3.4	23	49	58
16	27	33	40	40	46	44	41	5.0	3.4	23	51	56
17	29	33	40	40	45	43	41	5.2	3.3	24	52	33
18	29	34	40	40	44	43	41	5.0	3.3	20	52	24
19	29	33	40	40	44	43	41	5.0	3.2	17	52	29
20	29	33	41	40	44	43	40	4.8	3.4	22	52	32
21	28	33	41	40	44	43	39	4.7	7.5	22	47	33
22	33	33	41	40	45	43	38	5.0	3.0	17	52	33
23	42	32	40	40	44	43	38	4.8	2.9	14	52	22
24	46	32	40	40	44	43	38	4.6	2.9	14	64	9.1
25	45	32	41	40	44	42	38	4.5	2.9	21	75	1.1
26	45	32	43	40	44	42	37	4.4	4.7	26	80	27
27	44	32	42	40	45	42	38	4.3	0.21	31	80	57
28	44	32	41	40	46	42	38	4.0	0.16	41	80	57
29	37	32	41	40	---	42	34	4.0	0.15	42	81	57
30	34	32	41	41	---	42	21	4.2	0.16	40	81	57
31	34	---	41	43	---	42	---	4.1	---	40	80	---
TOTAL	820.0	942	1254	1251	1233	1331	1176	351.6	94.48	532.07	1731	1663.2
MEAN	26.45	31.40	40.45	40.35	44.04	42.94	39.20	11.34	3.149	17.16	55.84	55.44
MAX	47	34	43	43	50	45	42	28	7.5	42	81	83
MIN	5.3	27	38	40	42	42	21	4.0	0.15	0.04	39	1.1
AC-FT	1630	1870	2490	2480	2450	2640	2330	697	187	1060	3430	3300

CAL YR 2001 TOTAL 9895.19 MEAN 27.11 MAX 81 MIN 0.10 AC-FT 19630
WTR YR 2002 TOTAL 12379.35 MEAN 33.92 MAX 83 MIN 0.04 AC-FT 24550

15239050 MIDDLE FORK BRADLEY RIVER NEAR HOMER

LOCATION.--Lat 59°46′42″, long 150°45′15″, in NW¼ NE¼ sec.2, T.5 S., R.9 W. (Seldovia D-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on left bank 6.0 mi upstream from mouth and 27 mi east of Homer.

DRAINAGE AREA.--9.25 mi^2.

PERIOD OF RECORD.--October 1979 to current year. Published as Bradley River tributary near Homer prior to October 1989.

REVISED RECORDS.-- WDR AK-86-1: 1980(P), 1981-82(M), 1984(M). WRD AK-2000-1: 1995-1997.

GAGE.--Water-stage recorder. Elevation of gage is 2,300 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Precipitation gage and air temperature recorder at station; daily values of air temperature and precipitation are available from the computer files of the Alaska District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximums (*)
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Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul 22	2000	334	8.25	Sept 24	1730	373*	8.33*

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	e12	e6.5	e6.0	e4.0	e3.6	e3.2	e3.2	60	171	134	81
2	38	e12	e6.5	e6.0	e3.8	e3.6	e3.2	e3.2	59	172	138	95
3	46	e11	e6.5	e6.0	e3.8	e3.4	e3.2	e3.4	62	163	142	86
4	84	e11	e6.0	e6.0	e3.8	e3.4	e3.2	e3.4	69	166	147	82
5	126	e11	e5.5	6.0	e3.8	e3.4	e3.2	e3.6	68	167	141	122
6	99	e10	e5.5	7.5	e3.8	e3.4	e3.2	e3.6	64	171	146	117
7	75	e10	e5.5	5.8	e3.8	e3.4	e3.0	e3.8	65	197	151	103
8	62	e9.5	e5.5	e6.0	e3.8	e3.4	e3.0	e4.0	76	179	127	79
9	58	e9.5	e5.5	e6.0	e3.8	e3.4	e3.0	e4.4	88	155	114	65
10	51	e9.0	e5.5	e6.0	e3.8	e3.4	e3.0	e4.8	80	156	113	54
11	49	e9.0	e5.5	e6.0	e3.8	e3.4	e3.0	e5.4	72	158	120	48
12	49	e8.5	e5.5	e6.0	e3.8	e3.4	e3.0	6.0	65	163	145	59
13	46	e8.5	e5.5	e6.0	e3.8	e3.4	e3.0	7.1	60	172	150	219
14	34	e8.0	e5.5	e6.0	e3.6	e3.4	e3.0	8.9	71	162	122	185
15	30	e8.0	e5.0	5.8	e3.6	e3.4	e3.0	9.2	118	155	107	124
16	e30	e8.0	e5.0	5.9	e3.6	e3.4	e3.0	9.5	148	152	101	99
17	31	e7.5	e5.0	5.7	e3.6	e3.4	e3.0	13	157	159	105	100
18	26	e7.5	e5.0	e7.0	e3.6	e3.4	e3.0	18	171	190	102	76
19	e23	e7.5	e5.0	e6.0	e3.6	e3.4	e3.0	26	161	200	99	62
20	e22	e7.5	e8.0	e5.5	e3.6	e3.2	e2.5	36	132	195	158	51
21	e20	e7.0	e8.0	e5.5	e3.6	e3.2	e2.5	40	115	220	157	44
22	e19	e7.0	e6.0	e5.0	e3.6	e3.2	e2.5	53	106	295	128	44
23	e18	e7.0	e5.5	e4.6	e3.6	e3.2	e2.5	71	111	286	110	85
24	e17	e7.0	e5.5	e4.6	e3.6	e3.2	e2.5	52	131	257	100	206
25	e16	e7.0	e8.0	e4.4	e3.6	e3.2	e2.5	50	137	197	87	206
26	e16	e7.0	e10	e4.2	e3.6	e3.2	e2.5	53	135	173	72	160
27	e15	e7.0	e8.0	e4.0	e3.6	e3.2	e2.5	55	142	149	66	112
28	e14	e7.0	e7.0	e4.0	e3.6	e3.2	e3.0	53	124	121	67	93
29	e14	e6.5	e6.0	e4.0	---	e3.2	e3.0	53	130	125	71	86
30	e13	e6.5	e6.0	e4.0	---	e3.2	e3.2	58	153	132	81	72
31	e13	---	e6.0	e4.0	---	e3.2	---	62	---	139	78	---
TOTAL	1197	254.0	189.5	169.5	103.6	103.4	87.4	776.5	3130	5497	3579	3015
MEAN	38.61	8.467	6.113	5.468	3.700	3.335	2.913	25.05	104.3	177.3	115.5	100.5
MAX	126	12	10	7.5	4.0	3.6	3.2	71	171	295	158	219
MIN	13	6.5	5.0	4.0	3.6	3.2	2.5	3.2	59	121	66	44
AC-FT	2370	504	376	336	205	205	173	1540	6210	10900	7100	5980
CFSM	4.17	0.92	0.66	0.59	0.40	0.36	0.31	2.71	11.3	19.2	12.5	10.9
IN.	4.81	1.02	0.76	0.68	0.42	0.42	0.35	3.12	12.59	22.11	14.39	12.13

e Estimated

15239050 MIDDLE FORK BRADLEY RIVER NEAR HOMER—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	43.58	16.73	8.438	5.747	4.646	3.620	3.296	16.72	95.62	161.4	143.6	104.2
MAX	144	34.5	33.4	17.0	9.32	7.17	4.42	44.5	162	221	204	220
(WY)	1987	1980	1987	1981	1981	1981	2001	1990	1998	2001	2001	1995
MIN	15.6	5.29	4.45	3.82	2.86	1.30	2.38	5.45	44.7	111	86.9	38.7
(WY)	1997	1985	1985	1991	1991	1986	1999	1987	1985	1996	1996	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002	
ANNUAL TOTAL	22320.1		18101.9			
ANNUAL MEAN	61.15		49.59		50.94	
HIGHEST ANNUAL MEAN					63.8	1980
LOWEST ANNUAL MEAN					34.6	1996
HIGHEST DAILY MEAN	460	Jul 20	295	Jul 22	966	Sep 20 1995
LOWEST DAILY MEAN	a3.8	May 8	b2.5	Apr 20	c1.1	Mar 28 1986
ANNUAL SEVEN-DAY MINIMUM	3.9	May 5	2.5	Apr 20	1.1	Mar 28 1986
MAXIMUM PEAK FLOW			373	Sep 24	1470	Sep 20 1995
MAXIMUM PEAK STAGE			8.33	Sep 24	d8.86	Sep 20 1995
MAXIMUM PEAK STAGE			f9.58	Oct 16	g16.16	May 12 1998
ANNUAL RUNOFF (AC-FT)	44270		35910		36900	
ANNUAL RUNOFF (CFSM)	6.61		5.36		5.51	
ANNUAL RUNOFF (INCHES)	89.76		72.80		74.82	
10 PERCENT EXCEEDS	197		152		153	
50 PERCENT EXCEEDS	8.9		8.9		11	
90 PERCENT EXCEEDS	4.5		3.2		3.2	

a May 8-11
b Apr. 20-27
c From Mar. 28 to Apr. 10, 1986
d From recorded range in stage
f Backwater from snow bridge collapse
g Backwater from ice

15239060 MIDDLE FORK BRADLEY RIVER BELOW NORTH FORK BRADLEY RIVER NEAR HOMER

LOCATION.--Lat 59°47′54″, long 150°51′48″, in SE$\frac{1}{4}$ NE$\frac{1}{4}$ SW$\frac{1}{4}$ sec. 29, T. 4 S., R. 9 W. (Seldovia D-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on left bank 100 ft upstream from confluence with the main stem Bradley River, 0.2 mi below the mouth of the North Fork Bradley River, 5.5 mi downstream from the Middle Fork Bradley River diversion dam, and 25 mi east of Homer.

DRAINAGE AREA.--24.8 mi^2.

PERIOD OF RECORD.--August 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 200 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Water from upper Middle Fork Bradley River (15239050) is diverted into Bradley Lake at Middle Fork Bradley River diversion dam, located 5.5 mi upstream. Air temperature recorder at station, daily values of air temperature are available from the computer files of the Alaska District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	e20	e19	82	13	9.3	5.5	126	189	170	63	36
2	63	e19	e18	61	13	8.4	5.5	104	169	158	64	33
3	65	e19	e17	44	12	e8.0	5.5	78	156	139	65	34
4	91	19	e16	36	14	e7.5	5.5	60	154	135	62	30
5	101	18	e15	34	14	e7.0	5.5	54	152	125	57	31
6	90	18	e15	37	13	e7.0	5.6	56	134	131	54	38
7	78	17	e14	36	12	e6.5	5.7	56	138	129	53	35
8	70	17	e13	32	11	e6.5	5.8	62	177	111	49	32
9	86	16	e13	78	12	e6.0	5.8	83	248	95	46	30
10	79	16	e12	64	11	e6.0	5.7	85	202	99	47	28
11	69	16	12	44	11	e5.5	5.6	78	158	103	46	26
12	62	16	12	37	12	e5.5	5.5	83	140	109	51	28
13	58	15	11	30	12	5.5	5.4	96	126	109	52	91
14	54	14	11	31	15	6.0	5.4	116	152	93	47	92
15	49	14	10	31	13	6.8	5.4	115	250	86	42	68
16	43	13	9.6	28	12	6.7	5.3	122	253	86	39	54
17	42	17	9.0	36	11	6.6	5.2	157	228	89	39	74
18	45	34	8.8	34	10	6.5	5.7	198	211	101	38	61
19	39	32	8.5	29	9.4	6.4	6.8	233	189	94	38	51
20	36	34	8.1	25	e9.0	6.4	7.2	250	147	86	49	44
21	35	35	9.7	e24	e8.5	6.3	6.8	241	128	88	51	40
22	32	36	11	e22	8.3	6.3	6.8	261	115	116	41	37
23	e30	35	11	e21	8.1	6.2	7.1	272	113	104	38	46
24	29	30	9.6	e20	8.1	6.2	7.7	258	119	95	35	136
25	e26	27	22	e19	8.8	6.1	8.4	249	131	85	32	163
26	e23	e25	e32	e18	10	6.0	8.8	238	130	82	30	110
27	e23	e24	e55	e17	9.8	6.0	11	219	131	73	28	90
28	e24	e22	89	e16	10	5.8	20	200	125	60	27	78
29	e24	e21	62	16	---	5.7	55	196	132	60	27	71
30	23	e20	55	15	---	5.7	97	227	154	62	29	67
31	21	---	54	14	---	5.6	---	227	---	67	32	---
TOTAL	1585	659	662.3	1031	311.0	200.0	342.2	4800	4851	3140	1371	1754
MEAN	51.13	21.97	21.36	33.26	11.11	6.452	11.41	154.8	161.7	101.3	44.23	58.47
MAX	101	36	89	82	15	9.3	97	272	253	170	65	163
MIN	21	13	8.1	14	8.1	5.5	5.2	54	113	60	27	26
AC-FT	3140	1310	1310	2040	617	397	679	9520	9620	6230	2720	3480
CFSM	2.06	0.89	0.86	1.34	0.45	0.26	0.46	6.24	6.52	4.08	1.78	2.36
IN.	2.38	0.99	0.99	1.55	0.47	0.30	0.51	7.20	7.28	4.71	2.06	2.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	48.35	46.16	20.77	21.68	11.32	9.365	21.38	117.3	194.4	111.6	50.54	75.53
MAX	75.4	96.3	53.5	75.3	16.7	20.7	36.4	155	277	193	120	116
(WY)	2000	1998	2001	2001	1998	1998	1998	2002	2001	2001	2001	1997
MIN	23.2	16.2	7.69	2.68	2.00	2.74	9.59	97.0	103	45.7	12.5	27.6
(WY)	1997	2000	1997	1999	1999	1999	1999	2000	1997	1997	1996	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1996 - 2002#	
ANNUAL TOTAL	30571.2		20706.5			
ANNUAL MEAN	83.76		56.73		61.92	
HIGHEST ANNUAL MEAN					90.8	2001
LOWEST ANNUAL MEAN					44.0	1997
HIGHEST DAILY MEAN	342	Jun 29	272	May 23	626	Nov 9 1997
LOWEST DAILY MEAN	a8.0	Apr 1	5.2	Apr 17	b1.0	Feb 5 1999
ANNUAL SEVEN-DAY MINIMUM	8.3	Mar 27	5.4	Apr 11	1.0	Feb 5 1999
MAXIMUM PEAK FLOW			c308	May 23	c875	Nov 9 1997
MAXIMUM PEAK STAGE			10.88	May 23	13.64	Nov 9 1997
ANNUAL RUNOFF (AC-FT)	60640		41070		44860	
ANNUAL RUNOFF (CFSM)	3.38		2.29		2.50	
ANNUAL RUNOFF (INCHES)	45.86		31.06		33.92	
10 PERCENT EXCEEDS	229		139		158	
50 PERCENT EXCEEDS	43		34		32	
90 PERCENT EXCEEDS	11		6.4		5.8	

\# See Period of Record; partial years used in monthly statistics
a Apr. 1-2
b Feb. 5-12, 1999
c From rating curve extended above 50 ft^3/s on basis of comparison of instantaneous discharge of Bradley River below Dam (15239001) and instantaneous discharge of Bradley River near Tidewater (15239070)
e Estimated

15239070 BRADLEY RIVER NEAR TIDEWATER NEAR HOMER

LOCATION.--Lat 59°48′06″, long 150°52′58″, in SE$\frac{1}{4}$ NE$\frac{1}{4}$ sec. 30, T. 4 S., R. 9 W. (Seldovia D-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on right bank 0.7 mi upstream from mouth, 0.8 mi downstream from Middle Fork Bradley River, 4.3 mi downstream from Bradley Lake outlet and dam site, and 25 mi east of Homer.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 25 ft above sea level, from topographic map.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Flow occasionally affected by high tides. Intermittent regulation during construction at the Bradley River dam site began in November 1986. Flow has been regulated since the reservoir began filling April 26, 1991. (See station 15239001.) Upper Nuka River was diverted into Upper Bradley River on July 29, 1990; flow from about 10 mi^2 of Middle Fork Bradley River upstream drainage has been seasonally diverted into the Bradley Lake reservoir since August 7, 1990. Battle Creek was diverted into the reservoir in October 1990. Water has been diverted out of the basin through the turbines since hydropower generation began June 28, 1991. Rain gage and air temperature recorder at station; daily values of precipitation and air temperature available from the computer files of the Alaska District. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	55	e60	168	e65	53	e46	187	217	185	107	123
2	69	50	e60	132	64	51	46	133	199	174	108	122
3	71	48	e60	105	60	e50	46	100	183	150	109	122
4	98	48	e60	92	64	e50	e45	91	180	145	106	118
5	112	46	e60	91	62	e50	e45	93	178	133	105	120
6	100	46	e60	99	60	e50	45	103	158	139	106	127
7	86	e46	e60	98	59	e50	45	96	161	138	105	124
8	78	e44	e55	91	58	e50	44	104	203	117	104	121
9	95	e44	e55	187	e55	e50	45	127	278	110	101	120
10	96	e48	e55	162	e55	e50	45	118	231	127	102	118
11	124	e50	e55	114	e55	e50	46	116	183	125	100	115
12	112	e50	e55	123	e55	e50	e47	125	163	129	106	118
13	94	e50	e55	94	e60	e50	e47	134	145	128	108	172
14	91	e48	e60	92	e60	e50	46	147	170	113	102	148
15	72	e48	e55	95	59	e50	46	147	275	113	96	136
16	72	e46	e55	88	57	e50	46	155	289	114	95	121
17	74	e50	e55	111	55	49	47	195	260	116	97	119
18	79	e70	e50	103	e55	48	48	243	238	128	97	89
19	72	e70	e50	88	55	47	50	278	216	114	98	84
20	69	e70	e50	84	e55	47	51	297	171	113	109	80
21	67	e75	e55	e80	e55	47	48	283	153	114	107	78
22	67	e75	e55	e75	e55	50	47	307	131	139	102	75
23	71	e75	e55	e75	e55	e50	47	321	129	122	99	78
24	78	e70	e60	e75	51	47	49	298	134	113	104	171
25	73	e65	e65	e70	54	47	49	282	148	106	109	190
26	73	e60	e80	e65	58	47	51	265	148	111	114	134
27	73	e60	e110	e65	55	46	53	245	145	104	111	152
28	73	e60	e150	e60	56	46	70	229	137	108	111	139
29	66	e55	140	e60	---	46	136	227	144	109	112	130
30	59	e55	122	e60	---	e46	177	255	167	107	115	126
31	58	---	123	e65	---	e46	---	255	---	113	119	---
TOTAL	2502	1677	2140	2967	1607	1513	1653	5956	5534	3857	3264	3670
MEAN	80.71	55.90	69.03	95.71	57.39	48.81	55.10	192.1	184.5	124.4	105.3	122.3
MAX	124	75	150	187	65	53	177	321	289	185	119	190
MIN	58	44	50	60	51	46	44	91	129	104	95	75
AC-FT	4960	3330	4240	5890	3190	3000	3280	11810	10980	7650	6470	7280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	93.20	88.30	64.98	63.81	63.00	52.73	69.35	160.9	190.3	144.5	133.1	137.2
MAX	145	143	114	137	112	70.5	93.8	205	263	185	178	224
(WY)	1992	1998	2001	2001	1994	1998	1993	1992	1998	2001	1995	1995
MIN	64.0	51.2	47.1	41.6	42.2	43.9	50.5	120	114	115	105	104
(WY)	1998	2000	1998	1999	1999	1999	1999	1996	1997	1997	2002	1993

\# See Period of Record and Remarks
e Estimated

15239070 BRADLEY RIVER NEAR TIDEWATER NEAR HOMER—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002#	
ANNUAL TOTAL	41983		36340			
ANNUAL MEAN	115.0		99.56		105.3	
HIGHEST ANNUAL MEAN					127	2001
LOWEST ANNUAL MEAN					83.8	1996
HIGHEST DAILY MEAN	477	Jan 15	321	May 23	954	Sep 21 1995
LOWEST DAILY MEAN	a44	Nov 8	b44	Nov 8	c40	Dec 15 1992
ANNUAL SEVEN-DAY MINIMUM	46	Nov 3	45	Apr 4	40	Jan 28 1999
MAXIMUM PEAK FLOW			368	Sep 24	11000	Oct 11 1986
MAXIMUM PEAK STAGE			5.93	Sep 24	13.73	Oct 11 1986
MAXIMUM PEAK STAGE			d7.68	Oct 17	f8.80	Dec 22 1999
INSTANTANEOUS LOW FLOW					17	Mar 28 1989
ANNUAL RUNOFF (AC-FT)	83270		72080		76260	
10 PERCENT EXCEEDS	220		171		177	
50 PERCENT EXCEEDS	90		88		88	
90 PERCENT EXCEEDS	49		48		48	

PRIOR TO REGULATION AND DIVERSION OF BRADLEY DAM

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1989, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	808	224	198	145	82.1	74.0	72.8	462	1032	1390	1318	966
MAX	1908	480	503	223	114	163	101	676	1357	1577	1781	1746
(WY)	1987	1984	1987	1985	1985	1984	1989	1987	1988	1988	1988	1989
MIN	363	86.1	78.9	72.5	37.4	27.4	42.5	282	862	1153	907	470
(WY)	1984	1986	1988	1989	1989	1989	1985	1985	1986	1983	1983	1983

SUMMARY STATISTICS	WATER YEARS 1983 - 1989#	
ANNUAL MEAN	583	
HIGHEST ANNUAL MEAN	722	1987
LOWEST ANNUAL MEAN	475	1985
HIGHEST DAILY MEAN	10000	Oct 11 1986
LOWEST DAILY MEAN	19	Dec 7 1986
ANNUAL SEVEN-DAY MINIMUM	22	Mar 26 1989
MAXIMUM PEAK FLOW	g11000	Oct 11 1986
MAXIMUM PEAK STAGE	h13.73	Oct 11 1986
INSTANTANEOUS LOW FLOW	i17	Mar 28 1989
ANNUAL RUNOFF (AC-FT)	422700	
ANNUAL RUNOFF (CFSM)	7.11	
ANNUAL RUNOFF (IN)	96.67	
10 PERCENT EXCEEDS	1470	
50 PERCENT EXCEEDS	388	
90 PERCENT EXCEEDS	52	

\# See Period of Record and Remarks
a Nov. 8 and 9
b Nov. 8, 9, and Apr. 8
c Dec. 15 to Dec. 18, 1992; Apr. 20 to Apr. 21, 1995; Jan. 9 and Apr. 22, 1997; Mar. 5, 1998; Jan. 16 to Jan. 20, and Jan. 28 to Feb. 12, 1999
d Backwater from high tide
f Backwater from ice and high tide
g From rating curve extended above 2,400 ft^3/s on basis of runoff comparisons with nearby stations
h From floodmarks
i Minimum recorded, but may have been less during period of ice effect, Mar. 28 to Mar. 31, 1989

15241600 NINILCHIK RIVER AT NINILCHIK

LOCATION.--Lat 60°02′56″, long 151°39′48″, in NE$^{1}/_{4}$ sec. 34, T. 1 S., R. 14 W. (Kenai A-5 quad), Kenai Peninsula Borough, Hydrologic Unit 19020301, on right bank 60 ft downstream from bridge, 0.9 mi upstream from mouth, at Ninilchik.

DRAINAGE AREA.--135 mi^2.

WATER-DISCHARGE RECORDS

WATER-DISCHARGE RECORDS
PERIOD OF RECORD.--April 1963 to September 1985, October 1998 to current year.

REVISED RECORDS.--WDR AK-01-1: Drainage area.

GAGE.--Water-stage-recorder. Datum of gage is 8.37 ft above NGVD of 1988. Prior to October 1, 1965, at site 0.2 mi upstream at different datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	e85	e75	e70	e60	e55	e45	e480	90	51	53	110
2	84	e85	e70	e70	e60	e50	e45	e460	87	50	50	108
3	85	e80	e70	e70	e60	e50	e45	e420	104	49	48	99
4	111	e80	e70	e70	e60	e50	e45	366	109	50	47	87
5	116	e80	e70	e70	e60	e50	e45	315	118	49	48	75
6	124	e80	e65	e70	e60	e50	e45	327	104	48	51	75
7	110	e80	e65	e70	e60	e50	e45	361	92	51	53	75
8	97	e80	e65	e70	e60	e50	e45	321	85	52	55	73
9	92	e80	e65	e70	e60	e50	e45	292	81	51	56	90
10	100	e80	e65	e70	e60	e50	e45	279	85	59	53	87
11	101	e80	e65	e65	e60	e50	e45	249	98	55	72	77
12	93	e80	e60	e65	e60	e50	e45	220	117	48	93	73
13	86	e80	e60	e65	e55	e50	e45	206	116	47	95	75
14	84	e75	e55	e65	e55	e50	e45	204	105	49	72	85
15	86	e75	e55	e65	e55	e50	e45	206	91	50	62	84
16	85	e75	e50	e65	e55	e50	e50	218	80	49	61	79
17	87	e75	e50	e65	e55	e50	e50	230	74	46	57	102
18	e90	e80	e50	e65	e55	e50	e55	252	70	52	53	161
19	e85	e85	e55	e65	e55	e50	e60	279	66	84	51	137
20	e80	e85	e55	e60	e55	e50	e65	282	64	88	60	114
21	e80	e80	e55	e60	e55	e50	e80	240	65	73	88	95
22	e80	e80	e55	e55	e55	e45	e100	188	64	64	106	87
23	e85	e80	e50	e55	e55	e45	e130	155	63	70	107	87
24	e85	e80	e50	e55	e55	e45	e150	121	64	105	108	150
25	e85	e80	e50	e55	e55	e45	e180	107	65	115	110	437
26	e85	e80	e60	e60	e55	e45	e250	100	61	87	100	381
27	e85	e80	e75	e60	e55	e45	e400	95	59	98	87	304
28	e85	e75	e75	e60	e55	e45	e450	91	59	89	74	235
29	e85	e75	e75	e60	---	e45	e500	90	57	72	67	173
30	e85	e75	e75	e60	---	e45	e500	93	53	63	84	143
31	e85	---	e75	e60	---	e45	---	95	---	57	105	---
TOTAL	2805	2385	1930	1985	1600	1505	3695	7342	2446	1971	2226	3958
MEAN	90.48	79.50	62.26	64.03	57.14	48.55	123.2	236.8	81.53	63.58	71.81	131.9
MAX	124	85	75	70	60	55	500	480	118	115	110	437
MIN	80	75	50	55	55	45	45	90	53	46	47	73
AC-FT	5560	4730	3830	3940	3170	2990	7330	14560	4850	3910	4420	7850
CFSM	0.67	0.59	0.46	0.47	0.42	0.36	0.91	1.75	0.60	0.47	0.53	0.98
IN.	0.77	0.66	0.53	0.55	0.44	0.41	1.02	2.02	0.67	0.54	0.61	1.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	129.2	96.72	63.98	56.02	57.06	64.02	158.4	233.0	117.7	86.94	88.33	116.7
MAX	221	314	98.5	86.0	93.9	108	548	488	238	151	155	204
(WY)	1981	1980	1980	1980	1982	1970	1974	1977	1964	1980	1981	1982
MIN	78.2	41.1	42.0	36.8	36.0	36.9	41.4	81.7	62.2	57.6	47.8	54.6
(WY)	1969	1964	1966	1974	1974	1974	1985	1969	1969	1983	1969	1969

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1963 - 2002#	
ANNUAL TOTAL	41684		33848			
ANNUAL MEAN	114.2		92.73		106.0	
HIGHEST ANNUAL MEAN					151	1980
LOWEST ANNUAL MEAN					55.4	1969
HIGHEST DAILY MEAN	689	Apr 26	ae500	Apr 29	1220	Apr 24 1974
LOWEST DAILY MEAN	b50	Dec 16	c45	Mar 22	30	Jul 20 1966
ANNUAL SEVEN-DAY MINIMUM	53	Dec 14	45	Mar 22	32	Jan 9 1983
MAXIMUM PEAK FLOW			d		1240	Apr 24 1974
MAXIMUM PEAK STAGE			5.19	Sep 25	6.04	Apr 24 1974
MAXIMUM PEAK STAGE			f6.33	Apr 29	f8.69	Apr 14 1969
ANNUAL RUNOFF (AC-FT)	82680		67140		76830	
ANNUAL RUNOFF (CFSM)	0.85		0.69		0.79	
ANNUAL RUNOFF (INCHES)	11.49		9.33		10.67	
10 PERCENT EXCEEDS	213		150		197	
50 PERCENT EXCEEDS	80		70		76	
90 PERCENT EXCEEDS	58		50		49	

\# See Period of Record, partial years used in monthly statistics
a Apr. 29, 30
b From Dec.16 to 18, and Dec. 23 to 25
c From Mar. 22 to Apr, 15
d Not determined, occurred during period of backwater from ice and snow, see highest daily mean
e Estimated
f Backwater from ice

15241600 NINILCHIK RIVER AT NINILCHIK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-53, 1955-58, 1963-65, 1967-68, 1975, 1978-79, and 1998 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May to September 1963, October 1964 to July 1965, and October 1998 to current year.
SEDIMENT: October 1963 to July 1965.

INSTRUMENTATION.--Electronic water temperature recorder set for 15-minute recording interval, October 1 to May 21, and one-hour recording interval, May 21 to September 30.

REMARKS.--Records represent water temperature at sensor within 0.5°C. Temperature at the sensor was compared with the average for the river by cross sections on June 12. No variation was found within the cross sections. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 20.5°C, July 4, 1999; minimum, 0.0°C on many days during fall and winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 19.0°C, June 30, July 5, 11, and 17 ; minimum, 0.0°C on many days during fall and winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC- ATION, CROSS SECTION (FT FM R BK) (72103)	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)
JUN									
12...	1055	47.5	2.0	4.33	123	10	8010	9.0	11.0
12...	1056	47.5	10.0	4.33	123	10	8010	9.0	11.0
12...	1057	47.5	18.0	4.33	123	10	8010	9.0	11.0
12...	1058	47.5	26.0	4.33	123	10	8010	9.0	11.0
12...	1059	47.5	34.0	4.33	123	10	8010	9.0	11.0
12...	1100	47.5	42.0	4.33	123	10	8010	9.0	11.0

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.5	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	6.5	4.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	5.5	4.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	6.5	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	7.5	6.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	7.0	5.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7.0	4.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	4.5	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	5.0	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	5.5	3.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	3.5	1.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	2.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	3.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	1.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	1.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	1.5	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	2.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	7.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

15241600 NINILCHIK RIVER AT NINILCHIK—Continued

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	3.5	0.0	1.5
2	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	3.0	0.5	1.5
3	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	4.0	1.0	2.5
4	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	4.5	1.5	3.0
5	0.0	0.0	0.0	1.5	0.0	0.0	1.5	0.0	0.0	4.5	2.5	3.5
6	0.0	0.0	0.0	1.5	0.0	0.0	1.5	0.0	0.0	5.0	2.5	3.5
7	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	4.5	2.5	3.5
8	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	4.0	2.5	3.5
9	0.0	0.0	0.0	1.5	0.0	0.0	1.0	0.0	0.0	6.5	2.5	4.5
10	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	7.0	3.5	5.5
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	3.5	5.5
12	0.0	0.0	0.0	1.0	0.0	0.0	1.5	0.0	0.0	8.5	4.5	6.5
13	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	9.0	4.5	7.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	7.5	5.0	6.5
15	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	6.0	5.0	5.5
16	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	8.5	3.5	6.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	5.5	7.5
18	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	10.0	6.0	8.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	6.0	8.5
20	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	11.5	6.5	9.0
21	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	12.0	7.5	10.0
22	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	11.0	8.5	9.5
23	0.0	0.0	0.0	1.5	0.0	0.0	1.5	0.0	0.0	11.5	7.0	9.0
24	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	13.0	7.0	10.0
25	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	13.5	8.0	11.0
26	0.0	0.0	0.0	1.0	0.0	0.0	0.5	0.0	0.0	13.5	8.5	11.0
27	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	12.5	9.0	11.0
28	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	11.5	8.0	10.0
29	---	---	---	1.0	0.0	0.0	0.5	0.0	0.0	13.5	9.5	11.5
30	---	---	---	0.0	0.0	0.0	2.0	0.0	1.0	13.0	10.0	11.5
31	---	---	---	0.0	0.0	0.0	---	---	---	14.0	8.5	11.0
MONTH	0.0	0.0	0.0	1.5	0.0	0.0	2.0	0.0	0.0	14.0	0.0	7.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.0	9.5	10.5	18.0	13.5	16.0	18.0	12.0	15.0	12.5	9.5	11.0
2	10.5	8.0	9.5	18.5	13.0	15.5	18.0	12.0	15.0	12.5	9.0	11.0
3	11.0	8.0	9.5	17.5	12.5	15.0	18.5	12.5	15.5	12.0	8.0	10.0
4	11.5	8.5	10.0	18.0	12.0	15.0	18.0	12.0	15.0	11.0	9.0	10.0
5	12.5	9.0	10.5	19.0	12.0	15.5	16.0	13.5	14.5	11.0	10.0	10.5
6	13.5	9.5	11.0	16.0	13.0	14.0	17.0	13.0	14.5	11.0	9.5	10.0
7	14.5	8.5	11.5	14.5	12.0	13.0	15.5	13.0	14.0	12.0	8.0	10.0
8	12.5	9.0	10.0	16.5	11.5	14.0	16.0	12.5	14.0	10.0	7.5	9.0
9	9.5	8.0	9.0	14.5	12.5	13.5	16.5	11.0	14.0	11.0	8.0	9.5
10	10.0	8.0	9.0	17.0	11.0	14.0	14.0	11.5	12.0	10.0	6.5	8.5
11	11.0	8.5	10.0	19.0	12.0	15.5	12.0	11.0	11.5	8.5	6.5	7.5
12	11.0	8.5	10.0	18.0	13.0	15.5	13.0	10.5	11.5	8.0	7.0	7.5
13	12.5	8.5	10.0	15.5	13.0	14.0	15.0	10.0	12.0	9.0	7.5	8.0
14	15.5	8.0	11.5	13.5	11.5	12.5	14.0	10.0	12.0	8.5	7.5	8.0
15	17.0	10.5	14.0	15.5	11.5	13.0	13.0	11.0	12.0	9.5	7.5	8.5
16	17.0	11.5	14.5	17.5	10.5	14.0	14.5	9.0	12.0	9.5	7.5	8.5
17	17.0	12.0	14.5	19.0	12.5	15.5	15.5	10.0	13.0	9.5	8.0	8.5
18	18.0	12.0	15.0	17.0	13.0	14.0	16.0	10.5	13.5	8.5	6.5	7.5
19	15.5	12.0	13.5	14.5	11.5	13.0	13.5	11.5	12.5	8.5	6.5	7.5
20	14.0	11.5	13.0	14.0	11.5	12.5	12.5	11.5	12.0	7.5	5.5	6.5
21	14.5	10.5	12.5	14.0	11.5	12.5	13.0	11.0	12.0	7.5	4.0	5.5
22	15.5	9.5	12.5	14.0	12.0	13.0	12.5	11.0	11.5	8.0	5.0	6.5
23	13.0	10.0	11.5	14.0	11.5	13.0	12.5	10.5	11.5	8.0	6.5	7.5
24	14.0	11.0	12.0	14.0	11.5	12.5	12.0	10.0	11.0	8.0	7.5	7.5
25	15.0	11.5	13.0	15.0	11.0	12.5	11.5	9.0	10.5	9.0	7.5	8.0
26	14.0	11.0	12.5	13.0	11.5	12.0	13.0	8.5	10.5	9.5	8.0	8.5
27	13.5	10.5	12.0	15.0	10.5	12.5	12.5	8.5	10.5	9.0	8.0	8.5
28	16.5	10.5	13.5	16.0	10.5	13.5	13.5	8.5	11.0	9.0	8.0	8.5
29	18.0	11.0	14.5	15.0	10.5	13.0	11.5	9.0	10.0	8.0	7.0	7.5
30	19.0	12.5	16.0	17.5	11.0	14.5	11.0	9.0	10.0	7.5	7.0	7.0
31	---	---	---	17.5	12.0	14.5	12.0	9.5	10.5	---	---	---
MONTH	19.0	8.0	11.9	19.0	10.5	13.8	18.5	8.5	12.4	12.5	4.0	8.4

15243900 SNOW RIVER NEAR SEWARD

LOCATION.--Lat 60°17′42″, long 149°20′38″, in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 2 N., R. 1 E. (Seward B-7 quad), Kenai Peninsula Borough, Hydrologic Unit 19020302, on left bank, 0.5 mi below the Alaska Railroad bridge, 3.0 mi upstream from the mouth at Kenai Lake, and 13.5 mi north of Seward.

DRAINAGE AREA.--128 mi^2 (revision pending).

PERIOD OF RECORD.--August to September of 1970, 1974, 1977 and April 1997 to current year.

GAGE.--Water stage recorder. Elevation of gage is 470 ft above sea level, from topographic map. Prior to April 9, 1998 at site 0.5 mi upstream at different datum.

REMARKS.--Record poor. Rain gage at station. GOES satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Glacier-dammed lake outburst flood about August 31, 1967, 55,000 ft^3/s from rating curve extended above 27,000 ft^3/s, gage-height 42.60 ft from floodmarks, site and datum then in use.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	e220	e130	e1050	e160	e90	e65	e280	2570	3010	3320	2090
2	817	e220	e130	e750	e150	e90	e65	e260	2410	2740	3300	2110
3	769	e220	e130	e520	e150	e85	e65	e340	2430	2740	3520	1850
4	1660	e200	e140	e380	e150	e85	e65	e340	2480	2610	3810	e1500
5	3340	e200	e150	e340	e140	e80	e65	e360	2430	2580	3480	1580
6	2200	e200	e140	e450	e140	e80	e65	e380	2340	2500	3300	2100
7	1410	e180	e140	e600	e130	e75	e65	e360	2210	2550	3410	e1700
8	951	e180	e130	e500	e130	e75	e65	e420	2310	2640	3320	e1500
9	877	e180	e130	e600	e130	e75	e65	e460	2360	2490	3030	e1300
10	689	e160	e120	e700	e130	e75	e65	e500	2310	2400	2650	e1200
11	527	e160	e110	e600	e120	e70	e65	e550	2150	2540	2860	e1100
12	390	e160	e110	e400	e120	e70	e65	e600	2000	2570	3310	e1400
13	e380	e140	e120	e300	e120	e70	e65	e750	2030	2540	3430	3360
14	e380	e130	e120	e320	e120	e70	e65	e900	2050	2460	2910	5590
15	e360	e130	e120	e340	e110	e70	e65	970	2690	2370	2410	4970
16	e360	e130	e120	e360	e110	e65	e65	987	2920	2450	2200	3520
17	e340	e140	e110	e420	e110	e65	e70	1110	3020	2800	2480	3320
18	e340	e150	e100	e520	e110	e65	e70	1440	3350	3120	2460	2760
19	e320	e160	e100	e420	e110	e65	e75	1770	3300	3030	2200	2050
20	e300	e170	e120	e380	e100	e65	e75	1990	2920	2870	2590	e1500
21	e300	e170	e130	e300	e100	e65	e80	2170	2690	3250	3210	e1100
22	e280	e150	e150	e250	e100	e65	e80	2390	2480	4000	3230	e1000
23	e280	e150	e170	e200	e100	e65	e90	2630	2470	4640	2980	e1300
24	e260	e150	e150	e220	e100	e65	e90	2590	2770	5990	2800	2390
25	e260	e140	e1800	e240	e100	e65	e100	2590	3090	5550	2470	3640
26	e260	e150	e6800	e200	e95	e65	e110	2600	4310	4640	1870	3730
27	e240	e140	e3000	e180	e95	e65	e120	2780	3950	4100	1530	3350
28	e240	e140	e2800	e170	e95	e65	e150	2700	3280	3490	1520	2590
29	e240	e140	2650	e170	---	e65	e170	2850	3030	3370	1640	1730
30	e240	e130	e1000	e160	---	e65	e230	2870	3060	3300	2130	e1500
31	e240	---	e800	e160	---	e65	---	2850	---	3340	2190	---
TOTAL	20330	4890	21920	12200	3325	2200	2550	43787	81410	98680	85560	68830
MEAN	656	163	707	394	119	71.0	85.0	1412	2714	3183	2760	2294
MAX	3340	220	6800	1050	160	90	230	2870	4310	5990	3810	5590
MIN	240	130	100	160	95	65	65	260	2000	2370	1520	1000
AC-FT	40320	9700	43480	24200	6600	4360	5060	86850	161500	195700	169700	136500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	918	290	304	240	118	101	163	829	2309	3166	2984	3234
MAX	2506	514	707	524	188	220	277	1412	2714	3281	5598	6294
(WY)	1999	1998	2002	2001	1998	1998	1998	2002	2002	1998	1977	1974
MIN	279	163	87.3	57.0	42.0	39.2	81.8	491	1780	2866	1764	1157
(WY)	1998	2002	1999	1999	1999	1999	1999	2001	1999	1999	1998	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002#	
ANNUAL TOTAL	524241		445682			
ANNUAL MEAN	1436		1221		1135	
HIGHEST ANNUAL MEAN					1412	2001
LOWEST ANNUAL MEAN					965	2000
HIGHEST DAILY MEAN	ab13500	Sep 20	6800	Dec 26	b23800	Sep 20 1974
LOWEST DAILY MEAN	100	Mar 29	65	Mar 16	c36	Mar 3 1999
ANNUAL SEVEN-DAY MINIMUM	109	Mar 23	65	Mar 16	37	Feb 26 1999
MAXIMUM PEAK FLOW			d		b26400	Sep 20 1974
MAXIMUM PEAK STAGE			f11.20	Dec 26	g40.75	Sep 20 1974
INSTANTANEOUS LOW FLOW					36	Mar 3 1999
ANNUAL RUNOFF (AC-FT)	1040000		884000		822600	
10 PERCENT EXCEEDS	3430		3240		3400	
50 PERCENT EXCEEDS	356		380		620	
90 PERCENT EXCEEDS	116		70		71	

\# See Period of Record, partial years used in monthly summary statistics
a Sept. 20 and Sept. 21
b Result of release of stored water from glacier-dammed lake
c Mar. 3 and Mar. 4, 1999
d Not determined, see highest daily mean
e Estimated
f From ice debris floodmarks, backwater from ice, date approximate
g Site and datum then in use

15258000 KENAI RIVER AT COOPER LANDING

LOCATION.--Lat 60°29'34", long 149°48'28", in SE1/4 sec. 28, T. 5 N., R. 3 W. (Seward B-8 quad), Kenai Peninsula Borough, Hydrologic Unit 19020302, Chugach National Forest, on right bank 10 ft downstream from bridge on Sterling Highway, 0.9 mi upstream from Bean Creek, 0.9 mi east of Cooper Landing, and at Kenai Lake outlet.

DRAINAGE AREA.--634 mi^2.

PERIOD OF RECORD.--May 1947 to current year.

REVISED RECORDS.--WSP 2136: 1964 (M).

GAGE.--Water-stage recorder. Datum of gage is 419.92 ft above sea level (levels by Alaska Department of Transportation). See WSP 2136 for history of changes prior to August 28, 1965. August 28, 1965 to January 21, 1974, at site 10 ft upstream at present datum. January 22, 1974 to September 30, 1981, non-recording gage at site 40 ft upstream at present datum.

REMARKS.--Records good except for estimated daily discharge, which is fair. Diversion from Cooper Lake to Kenai Lake above gage through Cooper Lake power plant began May 1961. No diversions occurred during November. Rain gage at station. GOES satellite telemetry and telephone modem at station.

COOPERATION.--Records of diversion provided by Chugach Electric Association.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6220	1360	786	1540	1140	782	531	645	7040	7310	6380	4280
2	5640	1330	764	1600	1110	765	525	695	6990	7180	6220	4210
3	5160	1310	743	1660	1110	753	527	750	6890	7120	6100	4210
4	4790	1280	722	1690	1110	748	528	806	6780	6990	6140	4130
5	4960	1250	711	1700	1080	745	527	860	6680	6940	6220	4020
6	5360	1210	697	1700	1050	734	526	921	6600	6850	6150	3970
7	5330	1160	683	1690	1010	732	527	975	6530	6730	6110	3990
8	5170	1120	676	1710	990	716	521	1040	6500	6740	6120	3960
9	4920	1080	661	1800	936	702	515	1100	6370	6690	6140	3840
10	4610	1050	656	1870	907	686	508	1160	6270	6540	6020	3710
11	4340	1040	657	1850	898	670	501	1230	6170	6430	5870	3570
12	4040	1010	639	1830	868	665	490	1300	6030	6360	5800	3510
13	3780	984	626	1810	874	657	481	1380	5890	6280	5900	3600
14	3530	958	617	1790	879	645	480	1500	5730	6220	5910	4230
15	3230	946	609	1720	877	635	479	1620	5790	6110	5890	4820
16	3030	931	611	1710	879	629	478	1760	6070	6030	5690	5100
17	2870	934	e600	1680	868	619	487	1910	6340	6040	5520	5150
18	2680	952	594	1620	863	617	496	2120	6750	6220	5440	5100
19	2540	929	602	1580	851	613	495	2420	7170	6380	5300	4890
20	2430	937	622	1530	842	611	494	2800	7360	6420	5210	4620
21	2290	924	660	1490	840	603	486	3280	7340	6430	5220	4320
22	2190	921	672	1440	844	598	484	3820	7180	6550	5340	4030
23	2080	916	667	1390	835	593	487	4320	7010	6780	5440	3770
24	1970	904	668	1340	824	588	490	4840	6890	7270	5470	3660
25	1860	894	711	1310	821	576	490	5340	6880	7850	5320	3830
26	1760	878	832	1280	821	568	494	5790	7060	8010	5060	4060
27	1660	861	1010	1270	815	565	502	6170	7410	7840	4810	4280
28	1580	834	1190	1260	796	561	521	6480	7480	7510	4570	4360
29	1520	823	1310	1240	---	551	554	6660	7400	7130	4440	4280
30	1460	804	1390	1190	---	543	604	6850	7350	6820	4350	4150
31	1420	---	1460	1160	---	536	---	7020	---	6570	4310	---
TOTAL	104420	30530	23846	48450	25738	20006	15228	87562	201950	210340	172460	125650
MEAN	3368	1018	769.2	1563	919.2	645.4	507.6	2825	6732	6785	5563	4188
MAX	6220	1360	1460	1870	1140	782	604	7020	7480	8010	6380	5150
MIN	1420	804	594	1160	796	536	478	645	5730	6030	4310	3510
MED	3030	949	672	1620	876	629	499	1760	6830	6730	5690	4140
AC-FT	207100	60560	47300	96100	51050	39680	30200	173700	400600	417200	342100	249200
CFSM	5.31	1.61	1.21	2.47	1.45	1.02	0.80	4.46	10.6	10.7	8.77	6.61
IN.	6.13	1.79	1.40	2.84	1.51	1.17	0.89	5.14	11.85	12.34	10.12	7.37

ADJUSTED TO EXCLUDE DIVERSION FROM COOPER LAKE

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3297	1018	703	1267	720	464	348	2678	6617	6664	5452	4072
CFSM	5.20	1.61	1.11	2.00	1.14	0.73	0.55	4.22	10.44	10.51	8.60	6.42
IN	6.00	1.79	1.28	2.30	1.18	0.84	0.61	4.87	11.64	12.12	9.91	7.17
AC-FT	202750	60560	43240	77880	39970	28550	20700	164680	393770	409770	335230	242330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3272	1783	1122	827.7	657.5	514.4	545.6	1924	5436	7002	6366	5288
MAX	8955	4877	3469	2807	2066	1122	1071	3508	10010	10480	11430	11490
(WY)	1980	1958	1986	1981	1981	1977	1980	1990	1953	1980	1977	1967
MIN	1264	654	364	310	251	208	262	658	3268	4868	3651	2629
(WY)	1956	1951	1951	1951	1949	1951	1952	1952	1972	1996	1969	1969

\# See Period of Record and Remarks; partial years used in monthly statistics.
e Estimated

15258000 KENAI RIVER AT COOPER LANDING—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1947 - 2002#	
ANNUAL TOTAL	1403275		1066180			
ANNUAL MEAN	3845		2921		2913	
ANNUAL MEAN	3718		2789		2839	
HIGHEST ANNUAL MEAN					4499	1977
LOWEST ANNUAL MEAN					2102	1969
HIGHEST DAILY MEAN	15000	Sep 23	8010	Jul 26	22500	Sep 21 1974
LOWEST DAILY MEAN	587	Mar 29	478	Apr 16	100	Mar 28 1964
ANNUAL SEVEN-DAY MINIMUM	592	Mar 25	484	Apr 12	190	Mar 15 1951
MAXIMUM PEAK FLOW			8080	Jul 26	a23100	Sep 21 1974
MAXIMUM PEAK STAGE			11.66	Jul 26	17.18	Sep 21 1974
INSTANTANEOUS LOW FLOW			462	Apr 15	b0.00	Mar 27 1964
ANNUAL RUNOFF (AC-FT)	2783000		2115000		2110000	
ANNUAL RUNOFF (AC-FT)	*2692000		*2019000		*2057000	
ANNUAL RUNOFF (CFSM)	*5.86		*4.40		*4.48	
ANNUAL RUNOFF (INCHES)	*79.61		*59.71		*60.81	
10 PERCENT EXCEEDS	9730		6680		6980	
50 PERCENT EXCEEDS	1620		1600		1620	
90 PERCENT EXCEEDS	663		583		414	

\# See Period of Record and Remarks; partial years used in monthly statistics
Values shown on this page are unadjusted for inflow from diversion, unless otherwise noted
* Adjusted to account for inflow from diversion, see Remarks
a Result of release of stored water from glacier-dammed lake at head of unnamed glacier in the Snow River Basin
b No flow, Mar. 27 and Mar. 28, 1964, caused by earthquake

15261000 COOPER CREEK AT MOUTH NEAR COOPER LANDING

LOCATION.--Lat 60°28′50″, long 149°52′50″, in NW$\frac{1}{4}$ SW$\frac{1}{4}$ sec. 31, T. 5 N., R. 3 W. (Seward B-8 quad), Hydrologic Unit 19020302 Kenai Peninsula Borough,on left bank, approximately 0.5 mi upstream from mouth, and 1.5 mi west of Cooper Landing.

DRAINAGE AREA.--48.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to January 1965, August 1998 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 450 ft above sea level, from topographic map. From October 1957 to January 1965, 0.4 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Since July 1959, entire flow from 31.8 mi^2 of drainage area has been regulated by dam at Cooper Lake outlet. No spilling since 1959 except for period May 1961 to October 1962. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	e27	e16	e19	e13	e10	e10	52	136	100	50	34
2	40	e27	e16	e20	e12	9.9	e10	39	127	89	50	32
3	39	e27	e15	21	12	e10	e10	35	122	86	49	30
4	40	e27	e15	20	12	e10	e10	33	124	84	49	28
5	63	e26	e14	e19	12	e10	e9.5	37	122	83	48	27
6	63	e26	e14	e18	12	e10	e9.5	38	120	82	45	33
7	56	e25	e14	e18	12	e10	e9.0	39	122	82	45	34
8	51	e25	e13	18	e12	e10	8.4	46	126	80	43	31
9	51	e25	e13	e18	11	e10	8.4	52	118	76	41	29
10	48	e24	e13	18	e12	e9.5	8.2	52	113	72	39	28
11	45	e24	e13	e18	e11	e9.5	e8.0	54	109	70	40	27
12	42	e23	e13	18	e11	e9.5	e8.0	59	107	72	46	27
13	e41	e23	e12	18	e11	e9.5	e8.5	69	108	71	45	49
14	40	e23	e12	17	11	e9.5	8.3	79	112	69	41	96
15	39	e23	e12	17	11	e9.5	7.9	83	141	64	38	74
16	38	e22	e12	17	e11	e9.5	7.8	87	149	66	35	59
17	37	e21	e12	18	11	e9.5	7.9	104	156	69	34	55
18	36	e20	e12	19	e11	e9.5	8.0	125	153	78	34	52
19	34	e19	e12	18	e11	9.6	8.3	150	142	72	33	47
20	e33	e18	e12	e18	e10	9.3	8.4	159	120	64	35	42
21	33	e20	e12	e17	e10	9.1	8.4	164	105	62	38	39
22	31	19	e13	e16	e10	9.2	8.4	157	101	66	36	37
23	e30	19	e14	e15	e10	e9.0	8.5	169	100	68	34	36
24	e30	e20	e14	e15	e10	9.1	8.8	169	101	76	32	38
25	e30	e19	e15	e14	e10	9.0	9.1	173	102	68	31	43
26	e30	e18	e16	e14	10	9.2	9.7	174	101	61	29	42
27	e30	e18	e16	e14	10	8.7	13	165	95	57	27	42
28	e30	e17	e17	e13	10	8.6	27	152	86	53	26	39
29	e28	e17	e18	e13	---	8.6	47	146	88	51	26	37
30	e28	e16	e18	e13	---	e9.0	53	146	97	51	28	38
31	e28	---	e19	e13	---	e9.5	---	142	---	50	30	---
TOTAL	1206	658	437	524	309	293.3	367.0	3149	3503	2192	1177	1225
MEAN	38.9	21.9	14.1	16.9	11.0	9.46	12.2	102	117	70.7	38.0	40.8
MAX	63	27	19	21	13	10	53	174	156	100	50	96
MIN	28	16	12	13	10	8.6	7.8	33	86	50	26	27
AC-FT	2390	1310	867	1040	613	582	728	6250	6950	4350	2330	2430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	71.8	50.2	24.5	20.2	13.8	11.6	18.3	101	196	148	84.2	76.3
MAX	264	285	82.9	58.9	32.4	28.0	50.3	219	412	326	226	309
(WY)	1958	1958	1958	1958	1958	1958	1958	1961	1958	1961	1961	1961
MIN	20.7	11.9	10.0	8.00	6.43	4.50	9.00	42.6	73.7	68.1	38.0	21.6
(WY)	1964	1964	1964	1964	1999	1999	1960	1964	1963	1960	1963	1963

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1958 - 2002#	
ANNUAL TOTAL	19952.4		15040.3			
ANNUAL MEAN	54.7		41.2		69.0	
HIGHEST ANNUAL MEAN					a174	1958
LOWEST ANNUAL MEAN					29.9	1963
HIGHEST DAILY MEAN	253	Jun 24	174	May 26	ab810	Sep 22 1961
LOWEST DAILY MEAN	7.0	Apr 1	7.8	Apr 16	c4.0	Mar 19 1999
ANNUAL SEVEN-DAY MINIMUM	7.4	Mar 31	8.1	Apr 11	4.0	Mar 19 1999
MAXIMUM PEAK FLOW			d213	May 23	ab841	Sep 21 1961
MAXIMUM PEAK STAGE			d10.92	May 23	b2.10	Sep 21 1961
INSTANTANEOUS LOW FLOW			f		g3.1	Mar 1 1960
ANNUAL RUNOFF (AC-FT)	39580		29830		49980	
10 PERCENT EXCEEDS	148		103		184	
50 PERCENT EXCEEDS	28		27		34	
90 PERCENT EXCEEDS	9.4		9.5		9.5	

\# See Period of Record, partial years used in monthly statistics
a Includes natural flow or spill from area upstream from Cooper Lake dam
b Caused by release of water behind log jam upstream. Site and datum then in use
c From Mar. 19 to Apr. 14, 1999
d Also occurred on May 25
e Estimated
f Not determined. see lowest daily mean
g Caused by temporary storage behind ice jam upstream (observed)

15261000 COOPER CREEK AT MOUTH NEAR COOPER LANDING—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1998 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1998 to current year.

INSTRUMENTATION.--Electronic water-temperature recorder set for 15 minute recording interval.

REMARKS.--Records represent water temperature at the sensor within 0.5°C. Temperature at the sensor was compared with the average for the stream by cross section on August 8. No variations were found within the cross section. No variation was found between mean stream temperature and sensor temperature. Heavy shore ice occurs near the gage.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 11.5°C, July 14, 1999; Minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 11.0°C, August 3-4; Minimum, 0.0°C on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)
AUG									
08...	1247	28.2	3.00	10.09	41	10	8010	7.0	13.5
08...	1249	28.2	8.00	10.09	41	10	8010	7.0	13.5
08...	1251	28.2	13.0	10.09	41	10	8010	7.0	13.5
08...	1253	28.2	18.0	10.09	41	10	8010	7.0	13.5
08...	1255	28.2	23.0	10.09	41	10	8010	7.0	13.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	4.5	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	4.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
3	5.5	3.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5
4	6.5	5.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	1.0
5	5.5	4.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	1.0
6	4.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
7	4.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	1.0
8	3.5	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
9	4.5	3.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
10	4.0	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
11	2.5	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
12	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
14	2.5	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5
15	2.0	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5
16	1.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5
17	2.5	0.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	1.0
18	2.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	1.0
19	1.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	1.0
20	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
21	0.5	0.0	0.5	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.5	0.0	0.0	1.5	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	1.5	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	6.5	0.0	1.6	1.5	0.0	0.1	0.0	0.0	0.0	1.0	0.0	0.3

15261000 COOPER CREEK AT MOUTH NEAR COOPER LANDING—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	2.0	0.5	1.0
2	0.5	0.0	0.0	0.5	0.0	0.5	0.0	0.0	0.0	2.5	0.5	1.5
3	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	1.5
4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.0	2.0
5	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	2.0
6	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.0	1.5
7	0.5	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	3.0	1.0	2.0
8	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	3.0	1.0	2.0
9	0.5	0.0	0.5	0.0	0.0	0.0	1.0	0.5	0.5	2.0	1.0	1.5
10	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5	3.0	1.0	1.5
11	0.5	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	3.0	1.0	2.0
12	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.0	2.0
13	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.0	2.0
14	0.5	0.0	0.5	0.0	0.0	0.0	1.0	0.0	0.5	3.5	1.0	2.0
15	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	3.0	1.5	2.0
16	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	4.0	1.0	2.0
17	0.5	0.0	0.5	0.0	0.0	0.0	1.0	0.5	1.0	4.0	1.5	2.0
18	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5	4.0	1.0	2.0
19	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5	4.0	1.5	2.5
20	0.0	0.0	0.0	0.5	0.0	0.0	1.5	0.5	1.0	4.5	1.5	2.5
21	0.0	0.0	0.0	0.5	0.0	0.0	1.5	0.5	0.5	4.5	1.5	2.5
22	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5	3.5	1.5	2.5
23	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.5	4.5	2.0	3.0
24	0.0	0.0	0.0	0.5	0.0	0.5	1.5	0.0	0.5	5.0	1.5	3.0
25	0.5	0.0	0.5	1.0	0.5	0.5	2.0	0.0	1.0	5.0	2.0	3.0
26	1.0	0.5	0.5	1.0	0.5	1.0	2.0	0.5	1.0	4.5	2.0	3.0
27	0.5	0.0	0.5	1.0	0.5	1.0	2.5	0.0	1.0	4.0	2.5	3.0
28	1.0	0.0	0.5	1.0	0.0	0.5	2.0	0.0	0.5	4.5	2.0	3.0
29	---	---	---	0.5	0.0	0.5	1.5	0.0	0.5	4.5	2.5	3.5
30	---	---	---	0.0	0.0	0.0	2.0	0.0	1.0	5.0	2.5	3.5
31	---	---	---	0.0	0.0	0.0	---	---	---	5.5	2.0	3.5
MONTH	1.0	0.0	0.2	1.0	0.0	0.1	2.5	0.0	0.4	5.5	0.5	2.3

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4.5	2.5	3.5	7.5	4.0	5.5	10.5	6.0	8.0	8.0	6.0	7.0
2	4.5	2.0	3.5	7.5	4.0	5.5	10.5	6.0	8.0	7.5	5.5	7.0
3	5.0	2.5	3.5	8.5	4.0	6.0	11.0	6.0	8.5	7.0	4.0	5.5
4	5.5	2.5	3.5	8.0	4.5	6.0	11.0	6.0	8.5	8.0	5.5	6.5
5	4.5	2.5	3.5	9.0	4.0	6.0	9.0	5.5	7.5	8.5	6.5	7.5
6	4.0	3.0	3.5	8.5	4.5	6.5	10.5	6.5	8.5	7.5	6.5	7.0
7	6.5	3.0	4.0	9.0	4.5	6.5	8.5	7.0	7.5	---	5.0	---
8	5.0	3.0	3.5	8.0	5.0	6.0	8.0	6.5	7.0	7.5	5.5	6.5
9	5.0	3.0	4.0	7.5	4.5	6.0	8.5	4.5	6.5	7.5	5.5	6.0
10	5.5	3.0	4.0	8.5	5.0	6.5	7.5	5.5	6.5	6.0	3.5	5.0
11	5.5	3.0	4.0	9.0	5.0	7.0	7.5	6.0	7.0	5.5	3.5	4.5
12	6.0	3.0	4.5	9.0	4.5	6.5	8.0	6.5	7.0	6.0	5.0	5.5
13	5.0	3.0	4.0	9.0	5.0	7.0	9.0	6.0	7.5	7.0	5.5	6.0
14	7.5	3.0	4.5	9.0	5.5	6.5	8.0	4.5	6.5	6.0	5.0	5.5
15	7.0	3.0	4.5	9.0	5.0	7.0	7.5	6.0	6.5	6.5	4.5	5.0
16	7.0	3.0	4.5	10.0	4.5	7.0	9.0	5.0	7.0	6.5	4.0	5.0
17	7.5	3.0	5.0	10.5	6.0	8.0	9.5	6.0	7.5	6.0	4.5	5.5
18	7.5	3.0	5.0	8.0	6.0	7.0	9.5	6.0	8.0	5.5	3.0	4.0
19	5.5	3.5	4.5	8.5	5.0	6.5	8.0	6.0	7.0	5.5	3.5	4.5
20	5.5	3.0	4.5	7.5	5.5	6.5	8.5	7.0	7.5	4.0	2.0	3.0
21	6.0	3.5	4.5	9.0	6.0	7.5	8.5	7.0	7.5	4.5	2.0	3.0
22	8.0	3.5	5.0	9.0	6.5	7.5	8.5	6.5	7.5	6.0	3.5	4.5
23	6.0	3.5	4.5	8.5	6.0	7.5	8.5	6.0	7.5	7.0	5.5	6.0
24	6.5	4.0	5.0	8.0	6.5	7.0	8.0	6.0	7.0	6.5	6.0	6.5
25	6.5	4.0	5.0	8.5	5.5	7.0	8.5	6.0	7.0	7.5	6.0	6.5
26	6.5	4.0	4.5	7.5	6.0	6.5	7.5	4.0	6.0	7.5	6.0	6.5
27	6.0	3.5	5.0	7.5	5.0	6.0	8.0	4.5	6.5	6.0	4.5	5.5
28	8.0	3.0	5.5	8.5	5.0	7.0	8.0	5.0	7.0	6.0	4.0	5.0
29	9.0	3.5	6.0	9.0	6.0	7.5	7.5	6.0	7.0	5.0	3.0	4.0
30	9.0	4.5	6.0	10.0	5.5	7.5	8.0	6.0	7.0	5.0	4.5	4.5
31	---	---	---	10.5	6.0	8.0	8.0	6.0	7.0	---	---	---
MONTH	9.0	2.0	4.4	10.5	4.0	6.7	11.0	4.0	7.3	---	2.0	---

15266110 KENAI RIVER BELOW SKILAK LAKE OUTLET NEAR STERLING

LOCATION.--Lat 60°28′00″, long 150°35′56″, in SW$^1/_4$ NW$^1/_4$ sec. 1, T. 4 N., R. 8 W. (Kenai B-2 quad), Kenai Peninsula Borough, Hydrologic Unit 19020302, on right bank, 3.5 mi downstream from Skilak Lake, 7 mi southeast of Sterling.

DRAINAGE AREA.--1,206 mi^2.

PERIOD OF RECORD.--June 1997 to current year.

REVISED RECORDS.-- WRD-AK-00-1: Drainage area.

GAGE.--Water stage recorder. Elevation of gage is 240 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Rain gage recorder at station. GOES satellite telemetry and phone modem at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11600	3040	1510	2000	2050	1300	935	946	8460	11300	13000	10400
2	10800	2940	1460	2030	2020	1290	943	1030	8770	11500	12800	10300
3	10300	2850	1410	2050	1970	1290	947	1080	9040	11600	12600	10200
4	9460	2760	1380	2120	2020	1280	933	1130	9190	11600	12500	10000
5	8830	2690	1360	2130	1950	1270	927	1170	9270	11600	12400	9800
6	8670	2600	1330	2150	1910	1250	934	1220	9470	11600	12300	9710
7	8530	2520	1300	2170	1880	1230	931	1260	9540	11600	12300	9700
8	8360	2440	1290	2210	1830	1220	908	1300	9790	11700	12300	9410
9	8090	2360	1250	2520	1720	1210	931	1370	9560	11700	12200	9240
10	7730	2270	1240	2650	1680	1180	933	1450	9300	11700	12100	9020
11	7650	2200	1220	2610	1670	1180	911	1550	9230	11700	11900	8740
12	7350	2140	1200	2620	1580	1160	899	1630	9190	11700	12000	8670
13	7020	2070	e1150	2630	1670	1140	894	1720	9150	11600	12000	8500
14	6670	1990	e1150	2730	1570	1130	888	1820	9060	11600	12000	8500
15	6360	1960	e1100	2650	1530	1100	878	1940	8990	11500	11800	9200
16	6030	1910	e1100	2700	1510	1130	871	2080	8990	11400	11600	9730
17	5800	1910	e1100	2650	1530	1090	867	2220	9170	11400	11400	10300
18	5550	1960	e1100	2620	1460	1080	937	2390	9410	11500	11400	10500
19	5310	1890	e1100	2600	1430	1070	864	2610	9780	11700	11500	10400
20	5070	1870	e1100	2580	1430	1060	843	2860	10100	11800	11400	10100
21	4930	1820	e1200	2520	1430	1040	832	3180	10300	11900	11400	9710
22	4730	1790	e1300	2470	1430	1030	832	3580	10300	12000	11500	9390
23	4490	1740	e1400	2410	1400	1020	845	3960	10600	12200	11300	8930
24	4280	1720	e1500	2360	1330	1020	846	4450	10600	12600	11300	8820
25	4080	1700	e1600	2300	1360	992	832	4960	10600	13000	11400	8610
26	3910	1690	e1700	2260	1360	985	812	5530	10600	13300	11500	8970
27	3720	1640	1800	2220	1310	975	832	6150	10700	13600	11400	9120
28	3550	1600	1870	2210	1300	980	855	6640	10800	13700	11000	9240
29	3400	1560	1900	2200	---	962	876	7180	10900	13600	10700	9260
30	3270	1540	1920	2150	---	947	918	7660	11100	13500	10600	9160
31	3150	---	1950	2110	---	939	---	8050	---	13300	10500	---
TOTAL	198690	63170	42990	73630	45330	34550	26654	94116	291960	374500	364100	283630
MEAN	6409	2106	1387	2375	1619	1115	888.5	3036	9732	12080	11750	9454
MAX	11600	3040	1950	2730	2050	1300	947	8050	11100	13700	13000	10500
MIN	3150	1540	1100	2000	1300	939	812	946	8460	11300	10500	8500
AC-FT	394100	125300	85270	146000	89910	68530	52870	186700	579100	742800	722200	562600
CFSM	5.31	1.75	1.15	1.97	1.34	0.92	0.74	2.52	8.07	10.0	9.74	7.84
IN.	6.13	1.95	1.33	2.27	1.40	1.07	0.82	2.90	9.01	11.55	11.23	8.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5896	2989	1746	1883	1463	1064	1060	2522	8328	13100	11900	10100
MAX	7498	4441	2116	2960	2315	1325	1241	3036	9795	15400	13600	13860
(WY)	1998	2000	2001	2001	2001	2001	1998	2002	1998	2001	2001	2001
MIN	3937	2106	1387	1164	891	870	888	2210	6156	11960	10310	5659
(WY)	2001	2002	2002	1999	1998	1998	2002	2001	1997	1999	1998	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002#	
ANNUAL TOTAL	2193660		1893320			
ANNUAL MEAN	6010		5187		5198	
HIGHEST ANNUAL MEAN					5886	2001
LOWEST ANNUAL MEAN					4742	2000
HIGHEST DAILY MEAN	18300	Sep 3	13700	Jul 28	18300	Sep 3 2001
LOWEST DAILY MEAN	a1060	Apr 8	812	Apr 26	776	Mar 13 1998
ANNUAL SEVEN-DAY MINIMUM	1070	Apr 12	833	Apr 21	792	Mar 9 1998
MAXIMUM PEAK FLOW			b13800	Jul 27	18500	Sep 2 2001
MAXIMUM PEAK STAGE			11.87	Jul 28	13.21	Sep 2 2001
INSTANTANEOUS LOW FLOW			765	Apr 20	c765	Mar 12 1998
ANNUAL RUNOFF (AC-FT)	4351000		3755000		3765000	
ANNUAL RUNOFF (CFSM)	4.98		4.30		4.31	
ANNUAL RUNOFF (INCHES)	67.67		58.40		58.56	
10 PERCENT EXCEEDS	15000		11600		12600	
50 PERCENT EXCEEDS	2940		2580		2700	
90 PERCENT EXCEEDS	1160		983		1020	

\# See Period of Record, partial year used in monthly statistics
a Apr. 8, 14 and 15
b July 27 to 29
c Mar. 12 and 13, 1998 and Apr. 20, 2002
e Estimated

15266150 KENAI RIVER BELOW MOUTH OF KILLEY RIVER NEAR STERLING

LOCATION.--Lat 60°29′28″, long 150°37′50″, in NW1/4 SW1/4 SE1/4 sec. 26, T. 5 N., R. 8 W. (Kenai B-2 quad), Kenai Peninsula Borough, Hydrologic Unit 19020302, on right bank, 1.5 mi downstream from Killey River, 4.5 mi southeast of Sterling.

DRAINAGE AREA.--1,496 mi^2.

PERIOD OF RECORD.--June 1997 to current year.

GAGE.--Water stage recorder. Elevation of gage is 230 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. GOES satellite telemetry and phone modem at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12200	3000	1630	2210	2050	1400	1040	1580	9660	12800	14400	10700
2	11300	2940	1600	2200	2020	1390	1030	1610	9840	13000	14100	10500
3	10700	2860	e1600	2220	1960	1390	1030	1590	9960	13100	14000	10400
4	9970	2770	e1600	2230	2030	1390	1020	1600	10100	13200	13900	10200
5	9630	2690	e1550	2250	1970	1370	1020	1610	10200	13200	13800	10100
6	9460	2580	e1550	2290	1930	1360	1010	1640	10300	13100	13500	10500
7	9190	2470	e1550	2300	1900	1340	1000	1680	10200	13100	13600	10500
8	9030	2360	1550	2420	1870	1330	997	1730	10400	13200	13600	10100
9	8770	2270	1510	2680	1840	1310	1000	1800	10500	13200	e13500	9940
10	8340	2230	1460	2760	1800	1270	1000	1880	10300	13000	e13400	9580
11	7870	2190	1440	2710	1790	1280	995	1970	10100	13300	e13300	9360
12	7560	2140	1420	2720	1710	1250	987	2030	9830	13000	e13200	9220
13	7230	2090	e1400	2690	e1700	1240	981	2100	9860	12900	e13100	9090
14	6970	2030	e1400	2790	1690	1220	977	2200	9810	12800	e13000	9840
15	6700	2000	e1350	2720	1640	1200	977	2330	10000	12800	12800	10100
16	6360	1960	e1350	2750	1630	1210	963	2490	10300	12700	12500	10400
17	6100	1950	e1350	2720	e1600	1180	966	2640	10700	12700	12200	10700
18	5820	2020	e1400	2700	e1600	1170	1020	2900	11200	12800	12000	10900
19	5570	1960	e1450	2670	1550	1170	979	3280	11600	13200	11800	10900
20	5250	1940	e1500	2640	e1500	1160	982	3690	11600	13100	11700	10700
21	5070	1900	e1550	2560	e1500	1140	991	4160	11700	13200	11800	10300
22	4800	1880	e1600	2490	e1500	1130	1010	4680	11700	13500	11800	10000
23	4530	1860	e1650	2430	1500	1110	1020	5190	11800	14000	11800	9660
24	4330	1840	e1750	2370	1440	1110	1030	5790	11900	14500	11700	9650
25	4070	1790	e1850	e2350	1460	1090	1040	6380	11900	15000	11700	9690
26	3840	1750	e1950	e2300	1470	1080	1050	6980	12000	15100	11600	10000
27	3640	1700	e2000	2240	1440	1080	1110	7620	12000	15400	11500	10100
28	3470	1680	e2050	2210	1410	1080	1220	8190	12000	15300	11200	10100
29	3360	1660	e2150	2190	---	1070	1370	8640	12100	15100	11000	10000
30	3230	1660	e2200	2140	---	1060	1500	9140	12400	14900	10900	9860
31	3080	---	2200	2110	---	1050	---	9400	---	14700	10800	---
TOTAL	207440	64170	50610	76060	47500	37630	31315	118520	325960	420900	389200	303090
MEAN	6692	2139	1633	2454	1696	1214	1044	3823	10870	13580	12550	10100
MAX	12200	3000	2200	2790	2050	1400	1500	9400	12400	15400	14400	10900
MIN	3080	1660	1350	2110	1410	1050	963	1580	9660	12700	10800	9090
AC-FT	411500	127300	100400	150900	94220	74640	62110	235100	646500	834900	772000	601200
CFSM	4.47	1.43	1.09	1.64	1.13	0.81	0.70	2.56	7.26	9.08	8.39	6.75
IN.	5.16	1.60	1.26	1.89	1.18	0.94	0.78	2.95	8.11	10.47	9.68	7.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6199	3142	1889	1970	1514	1147	1229	2893	9511	14520	12850	10610
MAX	7859	4451	2276	3140	2337	1399	1490	3823	11080	18240	15930	14240
(WY)	1998	2000	2001	2001	2001	2001	1998	2002	1998	2001	2001	2001
MIN	4291	2139	1633	1126	989	926	1010	2456	7701	12580	11020	6196
(WY)	2001	2002	2002	1999	1998	1999	1999	1999	1997	1999	1998	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002#	
ANNUAL TOTAL	2460710		2072395			
ANNUAL MEAN	6742		5678		5644	
HIGHEST ANNUAL MEAN					6632	2001
LOWEST ANNUAL MEAN					5010	2000
HIGHEST DAILY MEAN	a19400	Jul 25	15400	Jul 27	a19400	Jul 25 2001
LOWEST DAILY MEAN	b1170	Mar 29	963	Apr 16	c800	Apr 19 1997
ANNUAL SEVEN-DAY MINIMUM	1190	Mar 26	978	Apr 11	836	Apr 1 1999
MAXIMUM PEAK FLOW			15600	Jul 27	d19600	Jul 24 2001
MAXIMUM PEAK STAGE			11.20	Jul 27	12.25	Sep 1 2001
INSTANTANEOUS LOW FLOW			910	Apr 17	f	
ANNUAL RUNOFF (AC-FT)	4881000		4111000		4089000	
ANNUAL RUNOFF (CFSM)	4.51		3.80		3.77	
ANNUAL RUNOFF (INCHES)	61.19		51.53		51.26	
10 PERCENT EXCEEDS	17400		13000		13500	
50 PERCENT EXCEEDS	3000		2670		2890	
90 PERCENT EXCEEDS	1370		1120		1100	

\# See Period of Record, partial year used in monthly statistics
a Jul. 25 and 26, 2001
b Mar. 29 and Apr. 6
c Apr 19, 1997 and Apr. 6-7, 1999
d Jul. 24 and 25
e Estimated
f Not determined, see lowest daily mean

15266300 KENAI RIVER AT SOLDOTNA

LOCATION.--Lat 60°28'39", long 151°04'46", in W$^1/_2$ SW$^1/_4$ sec. 32, T. 5 N., R. 10 W. (Kenai B-3 quad), Kenai Peninsula Borough, Hydrologic Unit 19020302, near center of span on downstream side of bridge on Sterling Highway, 1.0 mi southwest of Soldotna.

DRAINAGE AREA.--1,951 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to current year.

REVISED RECORDS.--WRD AK-00-1 drainage area.

GAGE.--Water-stage recorder. Datum of gage is 35.34 ft above sea level. Prior to May 1, 1997, non-recording gage at same site and datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. GOES satellite telemetry and phone modem at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12900	3310	e1800	e2400	e2250	e1500	e1100	2750	9960	12700	14600	10900
2	11900	3230	e1750	e2400	e2200	e1500	e1100	2660	10100	12900	14400	10600
3	11300	3180	e1750	e2450	e2150	e1500	e1050	2560	10200	13100	14200	10400
4	10700	2930	e1700	e2450	e2100	e1500	e1050	2450	10200	13100	14100	10300
5	10000	2820	e1700	e2500	e2100	e1500	e1050	2340	10300	13200	14000	10400
6	9690	2720	e1700	e2500	e2050	e1450	e1050	2370	10600	13000	14000	10700
7	9220	2610	e1700	e2650	e2050	e1450	e1050	2410	10700	13100	13900	10700
8	8980	2640	e1700	e2900	e2000	e1400	e1000	2440	10800	13200	13900	10400
9	9070	2400	e1650	e2950	e2000	e1400	e1000	2580	10900	13000	13700	10200
10	8670	2340	e1600	e3000	e1950	e1400	e1000	2650	10700	13200	13400	9740
11	8010	2320	e1600	e3000	e1950	e1400	e1050	2760	10500	13200	13300	9520
12	7580	2290	e1550	e2950	e1900	e1350	e1050	2770	10400	13100	13600	9500
13	7210	2270	e1500	e2950	e1900	e1350	e1050	2780	10300	13000	13500	9510
14	7020	e2250	e1450	e3000	e1850	e1350	e1050	2860	10500	13100	13300	10000
15	6810	e2200	e1450	e3000	e1800	e1300	e1050	2930	10700	12900	12900	10500
16	6430	2070	e1450	e2950	e1800	e1300	1070	3080	10800	12900	12700	10600
17	6390	e2100	e1500	e2900	e1750	e1250	1120	3310	11100	12900	12600	10900
18	6070	e2100	e1550	e2900	e1700	e1250	e1150	3590	11400	12800	12500	11100
19	5670	e2100	e1550	e2900	e1700	e1250	e1150	3930	11800	13300	12300	11000
20	5380	e2050	e1600	e2900	e1650	e1200	e1200	4240	12000	13300	12300	10800
21	5360	e2050	e1700	e2800	e1600	e1200	e1200	4810	12000	13400	12200	10500
22	4990	e2000	e1800	e2800	e1600	e1200	1230	5140	12100	13600	12200	10200
23	4660	e1950	e1850	e2700	e1600	e1200	1290	5610	12000	14100	12000	9930
24	4400	e1950	e1900	e2650	e1600	e1200	1410	6100	12300	14500	11800	9910
25	4170	1830	e2000	e2600	e1550	e1150	1510	6490	12400	14800	11700	10000
26	3950	1780	e2100	e2550	e1550	e1150	1730	7020	12400	14900	11700	10500
27	3780	e1850	e2150	e2500	e1550	e1150	2100	7700	12300	15200	11600	10600
28	3660	e1850	e2250	e2400	e1500	e1150	2350	8230	12300	15300	11500	10600
29	3630	e1800	e2300	e2350	---	e1150	2620	8590	12400	15100	11100	10400
30	3410	e1800	e2350	e2300	---	e1100	2830	9130	12400	15100	11100	10300
31	3380	---	e2400	e2300	---	e1100	---	9700	---	14800	11000	---
TOTAL	214390	68790	55050	83600	51400	40350	39660	135980	336560	421800	397100	310710
MEAN	6916	2293	1776	2697	1836	1302	1322	4386	11220	13610	12810	10360
MAX	12900	3310	2400	3000	2250	1500	2830	9700	12400	15300	14600	11100
MIN	3380	1780	1450	2300	1500	1100	1000	2340	9960	12700	11000	9500
AC-FT	425200	136400	109200	165800	102000	80030	78670	269700	667600	836600	787600	616300
CFSM	3.54	1.18	0.91	1.38	0.94	0.67	0.68	2.25	5.75	6.97	6.57	5.31
IN.	4.09	1.31	1.05	1.59	0.98	0.77	0.76	2.59	6.42	8.04	7.57	5.92

15266300 KENAI RIVER AT SOLDOTNA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7150	3415	2211	1887	1639	1340	1557	3174	8568	13480	14390	11730
MAX	14370	7335	5469	4290	4575	2696	2836	5645	12570	18740	24890	21280
(WY)	1970	1980	1977	1981	1981	1981	1980	1990	1980	1977	1977	1995
MIN	2852	1631	1132	823	822	800	812	1950	4940	9696	8706	5873
(WY)	1993	1974	1976	1976	1976	1976	1972	1973	1972	1973	1969	1969

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1965 - 2002#	
ANNUAL TOTAL	2585650		2155390			
ANNUAL MEAN	7084		5905		5925	
HIGHEST ANNUAL MEAN					8810	1977
LOWEST ANNUAL MEAN					4002	1973
HIGHEST DAILY MEAN	19800	Sep 3	15300	Jul 28	41400	Sep 24 1995
LOWEST DAILY MEAN	1340	Apr 1	a1000	Apr 8	b770	Apr 1 1966
ANNUAL SEVEN-DAY MINIMUM	1390	Mar 27	1030	Apr 4	774	Apr 1 1966
MAXIMUM PEAK FLOW			15600	Jul 30	42200	Sep 24 1995
MAXIMUM PEAK STAGE			9.89	Jul 30	14.50	Sep 24 1995
MAXIMUM PEAK STAGE					c22.62	Jan 18 1969
INSTANTANEOUS LOW FLOW			989	Apr 16	770	Apr 1 1966
ANNUAL RUNOFF (AC-FT)	5129000		4275000		4293000	
ANNUAL RUNOFF (CFSM)	3.63		3.03		3.04	
ANNUAL RUNOFF (INCHES)	49.30		41.10		41.27	
10 PERCENT EXCEEDS	17200		13000		14200	
50 PERCENT EXCEEDS	3330		2900		3200	
90 PERCENT EXCEEDS	1680		1250		1200	

See Period of Record; partial years used in monthly statistics
a Apr. 8 to Apr. 10
b Apr. 1 to Apr. 4, 1966
c Backwater from ice
e Estimated

15271000 SIXMILE CREEK NEAR HOPE

LOCATION.--Lat 60°49′15″, long 149°25′31″, in SW$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 34, T. 8 N., R. 1 W. (Seward D-7 quad), Kenai Peninsula Borough, Hydrologic Unit 19020302, Chugach National Forest, on left bank, 6.0 mi upstream from mouth at Turnagain Arm, and 10.6 mi southeast of Hope.

DRAINAGE AREA.-- 234 mi^2

PERIOD OF RECORD.--June 1979 to September 1990, August 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 250 ft above sea level, from topographic map. Prior to November 26, 1979, recording gage at site 0.8 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Rain gage at station. GOES satellite telemetry at station.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*)

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec.27	0300	3580	11.48	June 18	04:15	3810*	11.60*
May 26	0115	3810*	11.60*				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	994	426	e250	736	e230	165	142	547	2920	2420	1030	689
2	901	412	e250	667	e220	156	147	523	2710	2230	1020	670
3	846	401	e250	568	e220	158	149	507	2720	2160	1040	648
4	892	389	e250	477	e220	e160	147	491	2730	2160	1090	613
5	1370	373	e250	e460	e220	e160	147	511	2650	2020	1050	616
6	1230	355	e250	e800	e220	e160	146	524	2590	2020	983	672
7	1030	331	e250	e500	e220	e160	132	518	2630	1960	987	656
8	925	337	e250	442	e220	e150	132	552	2780	1930	1040	622
9	957	e350	e250	413	e220	e150	130	608	2600	1880	979	602
10	890	e350	e250	387	e200	e150	127	654	2490	1680	865	581
11	823	361	e250	360	e200	e140	130	690	2400	1640	913	556
12	740	356	e250	340	e200	e140	134	766	2220	1670	1060	591
13	685	313	e250	325	e200	e140	137	924	2250	1670	1150	602
14	683	324	e250	315	e190	e140	129	1070	2230	1580	984	1110
15	651	345	e250	311	188	e140	126	1140	2820	1450	865	1180
16	612	309	e240	297	190	e140	128	1130	3130	1430	782	830
17	603	325	e240	294	191	e140	132	1310	3340	1560	795	846
18	584	348	e240	294	180	e140	131	1760	3450	1760	798	853
19	554	335	e240	285	173	e130	133	2200	3240	1560	792	713
20	529	356	e280	266	e180	e130	135	2520	2780	1380	944	654
21	543	345	e280	238	e180	e130	137	2750	2400	1350	1010	612
22	514	330	e280	e240	e170	e130	137	2940	2190	1420	911	576
23	476	321	e260	e240	e170	e130	139	3090	2300	1500	847	561
24	452	301	e350	e240	e170	e130	143	3380	2410	2040	809	611
25	405	278	460	e240	e160	e130	149	3360	2530	1630	751	745
26	397	e275	1310	e220	e160	136	160	3450	2950	1320	695	764
27	398	e275	2920	e220	164	134	189	3490	2670	1170	656	733
28	449	e275	1180	e220	161	133	237	3240	2250	1050	628	663
29	422	e275	652	e220	---	143	352	3160	2170	1010	637	613
30	412	e250	660	e230	---	142	481	3230	2320	1010	674	626
31	421	---	638	e230	---	144	---	3070	---	1030	676	---
TOTAL	21388	10021	13980	11075	5417	4431	4838	54105	78870	50690	27461	20808
MEAN	690	334	451	357	193	143	161	1745	2629	1635	886	694
MAX	1370	426	2920	800	230	165	481	3490	3450	2420	1150	1180
MIN	397	250	240	220	160	130	126	491	2170	1010	628	556
AC-FT	42420	19880	27730	21970	10740	8790	9600	107300	156400	100500	54470	41270
CFSM	2.95	1.43	1.93	1.53	.83	.61	.69	7.46	11.2	6.99	3.79	2.96
IN.	3.40	1.59	2.22	1.76	.86	.70	.77	8.60	12.54	8.06	4.37	3.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	876	415	279	239	176	155	244	1269	2723	2251	1306	1027
MAX	1777	654	451	528	306	240	397	1811	3957	3986	2699	1556
(WY)	1981	1980	2002	1981	1981	1984	1990	1981	2001	1980	1981	1999
MIN	500	221	198	133	113	106	119	748	1736	1166	760	607
(WY)	1998	1986	1999	1999	1999	1999	1985	1985	1989	1990	1990	1983

\# See Period of Record; partial years used in monthly statistics
e Estimated

15271000 SIXMILE CREEK NEAR HOPE—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1979 - 2002#	
ANNUAL TOTAL	428291		303084			
ANNUAL MEAN	1173		830		924	
HIGHEST ANNUAL MEAN					1335	1980
LOWEST ANNUAL MEAN					675	1986
HIGHEST DAILY MEAN	5890	Jun 28	3490	May 27	7570	Jul 12 1980
LOWEST DAILY MEAN	a126	Apr 6	126	Apr 15	b80	Apr 1 1986
ANNUAL SEVEN-DAY MINIMUM	128	Apr 4	130	Mar 19	80	Apr 1 1986
MAXIMUM PEAK FLOW			3810	May 26	c8070	Jul 2 1980
MAXIMUM PEAK STAGE			11.60	May 26	13.22	Jul 2 1980
INSTANTANEOUS LOW FLOW					d29	Nov 26 1979
ANNUAL RUNOFF (AC-FT)	849500		601200		669500	
ANNUAL RUNOFF (CFSM)	5.01		3.55		3.95	
ANNUAL RUNOFF (INCHES)	68.09		48.18		53.66	
10 PERCENT EXCEEDS	3120		2350		2440	
50 PERCENT EXCEEDS	476		511		551	
90 PERCENT EXCEEDS	157		142		140	

See Period of Record; partial years used in monthly statistics
a Apr. 6, Apr. 7 and Apr. 9
b Apr. 1 to Apr. 9, 1986
c Peak discharge was probably greater sometime during the period, Nov. 26, 1979 to Jan. 9, 1980, during release from storage behind snow-avalanche dam upstream from former gage site
d Sometime between Nov. 26, 1979 and Jan. 9, 1980, during release from storage behind snow-avalanche dam upstream from former gage site, site and datum then in use

15272280 PORTAGE CREEK AT PORTAGE LAKE OUTLET NEAR WHITTIER

LOCATION.--Lat 60°47′07″, long 148°50′20″, in SW$\frac{1}{4}$ NE$\frac{1}{4}$ sec. 13, T. 8 N., R. 3 E. (Seward D-5 SW quad), Municipality of Anchorage, Hydrologic Unit 19020302, on left bank at lake outlet, 5.0 mi west of Whittier, 5.8 mi southeast of Portage, and 6.5 mi upstream from mouth.

DRAINAGE AREA.--40.5 mi^2.

PERIOD OF RECORD.--March 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 95 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s, August 19, 1984 (elevation about 97.05 ft above sea level from USFS levels) by contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 4,600 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage Height	Date	Time	Discharge (ft^3/s)	Gage Height
Oct 5	1600	5070	7.60	Sept 14	1315	*7210	*8.57

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	774	135	111	1120	e90	e60	e29	e95	1040	1630	1520	1520
2	673	132	101	789	89	e55	e30	122	996	1530	1510	1380
3	720	141	92	571	93	e50	e30	130	1450	1510	1600	1290
4	1590	128	e88	437	e100	e45	e30	133	1770	1480	1700	1110
5	4230	118	e83	541	e110	e40	e30	136	1490	1450	1680	1060
6	2980	106	e82	990	e100	e35	e30	137	1200	1460	1630	1110
7	1640	95	e79	1020	e95	e30	e31	137	1020	1460	2090	1090
8	1070	87	e78	735	e90	e30	e31	139	1060	1490	2040	1010
9	1260	81	e75	1130	e85	e30	e32	150	1590	1500	1670	949
10	1050	78	75	788	e80	e30	e31	164	2040	1440	1530	869
11	725	79	80	459	e80	e30	e31	173	2000	1450	2170	778
12	542	95	82	308	e75	e28	e30	184	1710	1460	2300	955
13	431	88	78	242	e70	e27	e30	199	1360	1470	2130	2350
14	368	82	e76	257	e80	e28	e30	219	1160	1460	1750	6270
15	338	90	e74	292	e85	e32	e32	242	1240	1390	1440	4400
16	293	84	e70	262	e80	e35	e34	250	1420	1380	1220	2150
17	272	103	69	269	e75	e34	e38	262	1490	1480	1260	1720
18	240	180	62	376	e65	e32	e40	301	1510	1790	1290	1820
19	218	206	58	323	e65	e30	e40	366	1570	2110	1250	1280
20	225	275	84	250	e60	e29	e42	454	1440	1960	1610	923
21	299	307	107	209	e55	e28	e40	537	1310	1820	2510	694
22	258	280	130	174	e55	e28	e38	630	1200	1970	2730	583
23	218	301	116	148	e55	e30	e38	847	1170	2210	2850	653
24	191	280	101	129	e50	e32	e36	920	1470	3390	2550	1440
25	170	230	190	e120	e45	e34	e40	906	1900	3120	2030	3160
26	150	191	1430	e110	e45	e35	e42	907	2430	2610	1520	2830
27	137	163	2490	e100	e50	e32	e44	1030	2560	2310	1230	2110
28	132	147	1150	e94	e55	e30	e46	1040	1960	1760	1070	1360
29	121	137	718	e90	---	e30	e50	1030	1630	1580	1190	957
30	112	122	964	e90	---	e29	e75	1120	1610	1510	1820	915
31	112	---	962	e90	---	e28	---	1110	---	1530	1780	---
TOTAL	21539	4541	9955	12513	2077	1046	1100	14070	45796	54710	54670	48736
MEAN	694.8	151.4	321.1	403.6	74.18	33.74	36.67	453.9	1527	1765	1764	1625
MAX	4230	307	2490	1130	110	60	75	1120	2560	3390	2850	6270
MIN	112	78	58	90	45	27	29	95	996	1380	1070	583
AC-FT	42720	9010	19750	24820	4120	2070	2180	27910	90840	108500	108400	96670
CFSM	17.2	3.74	7.93	9.97	1.83	0.83	0.91	11.2	37.7	43.6	43.5	40.1
IN.	19.78	4.17	9.14	11.49	1.91	0.96	1.01	12.92	42.06	50.25	50.22	44.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	545.1	228.1	139.0	146.2	114.4	84.04	229.6	599.0	1448	2104	2040	1855
MAX	1014	553	325	460	277	189	393	1158	1728	2518	3164	3583
(WY)	1994	1998	2002	2001	1997	1998	1995	1995	1990	1990	1989	1995
MIN	136	90.5	26.3	26.0	26.0	26.0	36.7	286	1178	1714	1409	649
(WY)	1997	1991	1991	1991	1991	1991	2002	2001	2001	1999	1998	1992

\# See Period of Record, partial years used in monthly statistics
e Estimated

15272280 PORTAGE CREEK AT PORTAGE LAKE OUTLET NEAR WHITTIER—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002	
ANNUAL TOTAL	295440		270753			
ANNUAL MEAN	809.4		741.8		786.1	
HIGHEST ANNUAL MEAN					972	1995
LOWEST ANNUAL MEAN					656	2000
HIGHEST DAILY MEAN	7970	Aug 29	6270	Sep 14	10700	Sep 20 1995
LOWEST DAILY MEAN	58	Dec 19	27	Mar 13	a26	Dec 5 1990
ANNUAL SEVEN-DAY MINIMUM	69	Feb 19	29	Mar 8	26	Dec 5 1990
MAXIMUM PEAK FLOW			7620	Sep 14	13000	Sep 20 1995
MAXIMUM PEAK STAGE			8.57	Sep 14	10.66	Sep 20 1995
INSTANTANEOUS LOW FLOW			b		26	Dec 5 1990
ANNUAL RUNOFF (AC-FT)	586000		537000		569500	
ANNUAL RUNOFF (CFSM)	20.0		18.3		19.4	
ANNUAL RUNOFF (INCHES)	271.37		248.69		263.73	
10 PERCENT EXCEEDS	1880		1820		1980	
50 PERCENT EXCEEDS	280		262		304	
90 PERCENT EXCEEDS	89		33		55	

See Period of Record, partial years used in monthly statistics
a From Dec. 5, 1990 to Mar. 31, 1991
b Not determined, see lowest daily mean

15272380 TWENTYMILE RIVER BELOW GLACIER RIVER NEAR PORTAGE

LOCATION.--Lat 60°53'53", long 148°55'19", in NE1/4 NW1/4 SE1/4 sec. 4, T. 9 N., R. 3 E. (Seward D-6 quad), Hydrologic Unit 19020401, on right bank, 0.1 miles downstream from Glacier River, 4.0 miles upstream from mouth at Seward Highway, and 6.0 miles northeast of Portage.

DRAINAGE AREA.--141 mi^2.

PERIOD OF RECORD.--April 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--Record is good except for July 18 to September 1 which are fair, and estimated daily discharges which are poor. GOES satellite telemetry at station.

REVISIONS.--Revised figures of discharge for water year 2001 are given below. These figures supercede those published in report for 2001.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e195	547	1760	3510	e2900	4500
2	---	---	---	---	---	---	e195	521	1950	3490	3010	3260
3	---	---	---	---	---	---	258	533	2090	3380	3180	2820
4	---	---	---	---	---	---	271	469	2030	3190	3180	3170
5	---	---	---	---	---	---	226	416	2020	3310	3070	4410
6	---	---	---	---	---	---	197	483	2070	3310	3010	3260
7	---	---	---	---	---	---	183	490	1920	3020	2900	2730
8	---	---	---	---	---	---	180	440	1750	2810	2710	2330
9	---	---	---	---	---	---	178	439	1870	2660	2600	2030
10	---	---	---	---	---	---	191	433	2070	2670	2450	1810
11	---	---	---	---	---	---	344	422	2230	2630	2370	1660
12	---	---	---	---	---	---	439	412	2230	2800	2590	2170
13	‡758	---	---	---	---	---	345	432	2100	2790	2910	3100
14	---	---	---	---	---	---	294	505	2170	2720	3210	2850
15	---	---	---	---	---	---	263	603	2380	2770	3270	2530
16	---	‡552	---	---	---	---	264	682	2700	2650	3150	2200
17	---	---	---	---	---	---	254	731	3050	2780	2980	2450
18	---	---	---	---	---	---	243	789	3160	2890	3090	2590
19	---	---	---	---	---	---	243	866	2970	3040	3110	2380
20	---	---	---	---	---	---	247	1010	2850	4440	6140	2110
21	---	---	---	---	---	---	267	1090	3020	4830	5620	2140
22	---	---	---	---	---	---	282	1170	3250	5160	4130	2070
23	---	---	---	---	---	---	300	1130	3730	4900	3170	2650
24	---	---	---	---	---	---	295	1140	4050	4040	2920	4090
25	---	---	---	---	---	---	395	1100	3840	3360	2760	3080
26	---	---	---	---	---	---	437	1060	4020	e3200	2580	2520
27	---	---	---	---	---	---	464	1060	4480	e3100	2530	2080
28	---	---	---	---	---	---	734	1200	4640	e2900	5510	1940
29	---	---	---	---	---	---	626	1400	4410	e2800	11000	1860
30	---	---	---	---	---	---	559	1460	3880	e2700	9230	1600
31	---	---	---	---	---	---	---	1630	---	e2800	7170	---
TOTAL	---	---	---	---	---	---	9369	24663	84690	100650	118450	78390
MEAN	---	---	---	---	---	---	312	796	2823	3247	3821	2613
MAX	---	---	---	---	---	---	734	1630	4640	5160	11000	4500
MIN	---	---	---	---	---	---	178	412	1750	2630	2370	1600
MED	---	---	---	---	---	---	266	682	2540	3020	3070	2480
AC-FT	---	---	---	---	---	---	18580	48920	168000	199600	234900	155500
CFSM	---	---	---	---	---	---	2.21	5.64	20.0	23.0	27.1	18.5
IN.	---	---	---	---	---	---	2.47	6.51	22.34	26.55	31.25	20.68

‡ Result of discharge measurement
e Estimated

15272380 TWENTYMILE RIVER BELOW GLACIER RIVER NEAR PORTAGE—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1490	459	e340	1510	e190	e95	e75	565	2320	2810	2620	2390
2	1410	451	e340	1360	e180	e95	e75	512	2150	2680	2640	2180
3	1290	444	e340	1180	e170	e90	e75	501	2250	2680	2700	2050
4	1660	432	e330	983	e180	e80	e80	491	2420	2710	2900	1850
5	4170	404	e330	998	e170	e70	e80	496	2300	2580	2870	1830
6	4020	381	e330	1710	e150	e65	e80	503	2180	2550	2700	1990
7	2720	e360	e320	1900	e150	e65	e80	507	2120	2580	2800	1870
8	1990	354	e310	1440	e160	e65	e75	575	2170	2640	2900	1710
9	1990	e340	e300	1990	e130	e70	e80	644	2280	2610	2750	1590
10	1920	375	e310	1510	e120	e70	e85	719	2440	2460	2520	1450
11	1600	356	e330	1030	e140	e70	e80	753	2430	2530	2920	1330
12	1320	383	e340	819	e140	e65	e75	806	2300	2570	3300	1400
13	1110	368	e330	689	e130	e60	e70	886	2210	2640	3240	2600
14	975	335	e320	e560	e130	e65	e75	968	2110	2590	2770	6280
15	872	e320	e310	e490	e120	e75	e70	1030	2390	2470	2380	4970
16	807	381	e300	e470	e130	e80	e65	1020	2630	2540	2130	2830
17	737	368	e300	e500	e140	e90	e65	1110	2800	2770	2180	2190
18	715	571	e290	e560	e110	e85	70	1320	2910	2950	2220	1930
19	659	612	e390	e450	e90	e80	97	1610	2870	2980	2200	1570
20	629	660	501	e380	e80	e80	115	1870	2650	2750	2560	1270
21	836	695	589	e350	e70	e75	113	2040	2490	2640	3350	1040
22	712	646	701	e240	e80	e75	122	2140	2360	2860	3900	892
23	669	609	674	e210	e90	e70	121	2200	2360	3070	3770	930
24	600	e550	644	e190	e110	e75	130	2400	2500	4120	3320	1500
25	553	e480	849	e170	e100	e85	142	2460	2860	3900	2750	3750
26	505	e430	3410	e150	e95	e95	159	2490	3120	3320	2300	3680
27	507	e400	3700	e170	e95	e90	205	2510	3280	3160	1980	3000
28	469	e380	2070	e190	e100	e85	251	2400	2910	2760	1840	2090
29	471	e370	1480	e210	---	e80	353	2290	2770	2600	1980	1530
30	449	e360	1520	e200	---	e75	471	2370	2800	2550	2530	1360
31	445	---	1360	e180	---	e70	---	2380	---	2620	2680	---
TOTAL	38300	13274	23658	22789	3550	2390	3634	42566	75380	86690	83700	65052
MEAN	1235	442	763	735	127	77.1	121	1373	2513	2796	2700	2168
MAX	4170	695	3700	1990	190	95	471	2510	3280	4120	3900	6280
MIN	445	320	290	150	70	60	65	491	2110	2460	1840	892
MED	836	392	340	500	130	75	80	1030	2430	2640	2700	1860
AC-FT	75970	26330	46930	45200	7040	4740	7210	84430	149500	171900	166000	129000
CFSM	8.76	3.14	5.41	5.21	0.90	0.55	0.86	9.74	17.8	19.8	19.1	15.4
IN.	10.10	3.50	6.24	6.01	0.94	0.63	0.96	11.23	19.89	22.87	22.08	17.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1235	442	763	735	127	77.1	217	1084	2668	3022	3260	2391
MAX	1235	442	763	735	127	77.1	312	1373	2823	3247	3821	2613
(WY)	2002	2002	2002	2002	2002	2002	2001	2002	2001	2001	2001	2001
MIN	1235	442	763	735	127	77.1	121	796	2513	2796	2700	2168
(WY)	2002	2002	2002	2002	2002	2002	2002	2001	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002#	
ANNUAL TOTAL	460983			
ANNUAL MEAN	1263		1263	
HIGHEST ANNUAL MEAN			1263	2002
LOWEST ANNUAL MEAN			1263	2002
HIGHEST DAILY MEAN	6280	Sep 14	11000	Aug 29 2001
LOWEST DAILY MEAN	60	Mar 13	60	Mar 13 2002
ANNUAL SEVEN-DAY MINIMUM	66	Mar 7	66	Mar 7 2002
MAXIMUM PEAK FLOW	7400	Sep 14	12300	Aug 29 2001
MAXIMUM PEAK STAGE	23.27	Sep 14	25.47	Aug 29 2001
ANNUAL RUNOFF (AC-FT)	914400		915000	
ANNUAL RUNOFF (CFSM)	8.96		8.96	
ANNUAL RUNOFF (INCHES)	121.62		121.70	
10 PERCENT EXCEEDS	2800		2800	
50 PERCENT EXCEEDS	712		712	
90 PERCENT EXCEEDS	80		80	

\# See Period of Record, partial years used in monthly statistics
e Estimated

15272380 TWENTYMILE RIVER BELOW GRANITE RIVER NEAR PORTAGE—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to September 2002.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 2002 to Spetember 2002.

INSTRUMENTATION.--Electronic water-temperature recorder set for 15 minute recording interval.

REMARKS.--Probe installed on April 22. Records represent water temperature at the sensor within 0.5°C. Temperature at the sensor was compared with the average for the stream by cross section on April 22 and September 3. No variation more than 0.5°C was found within the cross sections. No variation more than 0.5°C was found between mean stream temperature and sensor temperature. Heavy shore ice occurs near the gage.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 9.0°C, several days in June, July and August; Minimum, 0.0°C on April 23 and 24.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	TEMPER-ATURE WATER (DEG C) (00010)
APR								
22...	1245	57.0	5.00	14.98	121	10	8010	2.5
22...	1247	57.0	15.0	14.98	121	10	8010	2.6
22...	1249	57.0	25.0	14.98	121	10	8010	2.5
22...	1251	57.0	35.0	14.98	121	10	8010	2.5
22...	1253	57.0	45.0	14.98	121	10	8010	2.6
22...	1255	57.0	55.0	14.98	121	10	8010	2.6
SEP								
03...	1342	150	15.0	18.15	1960	10	8010	6.2
03...	1344	150	45.0	18.15	1960	10	8010	6.2
03...	1346	150	75.0	18.15	1960	10	8010	6.2
03...	1348	150	105	18.15	1960	10	8010	6.1
03...	1350	150	135	18.15	1960	10	8010	6.1

15272380 TWENTYMILE RIVER BELOW GRANITE RIVER NEAR PORTAGE—Continued

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	4.5	0.5	2.0
2	---	---	---	---	---	---	---	---	---	6.0	0.5	2.5
3	---	---	---	---	---	---	---	---	---	5.5	1.0	3.0
4	---	---	---	---	---	---	---	---	---	6.5	0.5	3.0
5	---	---	---	---	---	---	---	---	---	6.0	1.0	3.5
6	---	---	---	---	---	---	---	---	---	3.5	2.0	2.5
7	---	---	---	---	---	---	---	---	---	7.0	1.5	4.0
8	---	---	---	---	---	---	---	---	---	6.0	2.0	3.5
9	---	---	---	---	---	---	---	---	---	5.5	2.0	3.5
10	---	---	---	---	---	---	---	---	---	6.5	1.5	4.0
11	---	---	---	---	---	---	---	---	---	7.5	2.0	4.0
12	---	---	---	---	---	---	---	---	---	8.0	1.5	4.5
13	---	---	---	---	---	---	---	---	---	8.5	1.5	4.5
14	---	---	---	---	---	---	---	---	---	7.0	2.0	4.0
15	---	---	---	---	---	---	---	---	---	5.5	2.5	3.5
16	---	---	---	---	---	---	---	---	---	8.5	1.5	4.5
17	---	---	---	---	---	---	---	---	---	8.5	2.0	5.0
18	---	---	---	---	---	---	---	---	---	8.5	2.0	5.0
19	---	---	---	---	---	---	---	---	---	8.0	2.0	4.5
20	---	---	---	---	---	---	---	---	---	8.0	2.5	4.5
21	---	---	---	---	---	---	---	---	---	8.0	2.5	5.0
22	---	---	---	---	---	---	5.0	---	---	5.5	3.0	4.0
23	---	---	---	---	---	---	5.5	0.0	2.5	8.0	3.5	5.5
24	---	---	---	---	---	---	6.0	0.0	3.0	8.0	3.0	5.0
25	---	---	---	---	---	---	5.5	0.5	3.0	8.0	3.0	5.0
26	---	---	---	---	---	---	6.0	1.5	3.5	7.0	3.0	5.0
27	---	---	---	---	---	---	6.5	1.0	3.5	6.0	3.5	4.5
28	---	---	---	---	---	---	4.5	1.0	2.5	6.0	3.0	4.5
29	---	---	---	---	---	---	5.0	1.0	2.5	6.5	4.0	5.0
30	---	---	---	---	---	---	3.0	0.5	2.0	6.0	3.5	4.5
31	---	---	---	---	---	---	---	---	---	7.5	3.5	5.0
MONTH	---	---	---	---	---	---	---	---	---	8.5	0.5	4.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.0	3.5	4.5	6.5	5.0	5.5	9.0	4.5	6.5	7.0	4.5	5.5
2	6.0	3.5	4.5	8.5	4.5	6.0	8.5	4.5	6.5	7.5	4.0	5.5
3	6.0	4.0	5.0	7.5	4.5	6.0	9.0	5.0	6.5	7.0	4.0	5.0
4	6.5	4.0	4.5	8.0	4.5	6.0	9.0	5.0	6.5	7.5	4.5	5.5
5	6.0	4.0	5.0	8.5	4.0	6.0	8.0	5.0	6.0	6.0	5.0	5.5
6	5.5	3.5	4.5	6.5	5.0	5.5	7.0	5.0	6.0	5.5	5.0	5.0
7	8.5	3.5	5.5	9.0	4.5	6.5	7.5	5.0	6.0	6.5	4.0	5.0
8	6.0	4.0	5.0	9.0	4.5	6.5	6.0	5.0	5.5	6.5	4.5	5.0
9	5.5	4.0	4.5	6.0	5.0	5.5	8.0	4.5	6.0	7.0	4.5	5.5
10	5.5	3.5	4.5	9.0	4.5	6.5	6.0	5.0	5.5	7.0	3.5	5.0
11	6.5	4.0	5.0	8.0	5.0	6.5	5.5	5.0	5.0	5.5	4.0	5.0
12	7.5	4.0	5.5	8.5	5.0	6.5	6.5	5.0	5.5	5.0	4.5	5.0
13	6.5	4.0	5.0	9.0	5.0	6.5	8.0	5.0	6.0	5.5	4.5	5.0
14	9.0	3.5	6.0	7.0	5.0	6.0	8.0	4.5	5.5	5.5	4.5	4.5
15	9.0	3.5	6.0	9.0	5.0	6.5	6.5	4.5	5.5	5.5	4.5	5.0
16	9.0	4.0	6.0	9.0	4.5	6.5	6.5	4.5	5.5	6.5	4.0	5.0
17	8.5	4.0	6.0	9.0	5.0	6.5	8.5	4.5	6.0	6.0	4.5	5.0
18	8.0	4.0	5.5	7.0	5.5	6.0	8.0	5.0	6.0	6.0	4.0	5.0
19	7.0	4.5	5.0	7.5	4.5	6.0	6.0	5.0	5.5	5.0	4.0	4.5
20	7.5	4.0	5.5	7.5	5.0	6.0	6.0	5.0	5.5	5.5	3.5	4.0
21	7.5	4.0	5.5	7.0	5.0	6.0	5.5	5.0	5.0	6.0	3.0	4.0
22	9.0	4.0	6.0	6.5	5.0	6.0	5.5	5.0	5.0	6.0	3.5	4.5
23	6.0	4.5	5.0	6.5	5.0	5.5	6.5	4.5	5.5	6.0	5.0	5.0
24	7.0	4.5	5.5	6.5	5.0	5.5	6.0	5.0	5.5	5.5	5.0	5.0
25	6.0	4.5	5.0	6.0	5.0	5.5	6.5	4.5	5.5	5.5	4.0	4.5
26	6.0	4.0	5.0	6.0	5.0	5.0	7.5	4.0	5.5	5.5	4.5	5.0
27	6.0	4.0	5.0	7.5	4.5	6.0	6.0	4.0	5.0	5.5	4.5	4.5
28	8.0	4.0	5.5	7.5	4.5	6.0	8.0	4.0	5.5	5.5	4.0	4.5
29	8.5	4.0	6.0	8.0	4.5	6.0	6.0	5.0	5.5	4.5	3.5	4.0
30	8.5	4.5	6.0	9.0	4.5	6.5	5.5	4.5	5.0	5.0	4.0	4.5
31	---	---	---	9.0	4.5	6.5	6.5	4.5	5.0	---	---	---
MONTH	9.0	3.5	5.2	9.0	4.0	6.0	9.0	4.0	5.6	7.5	3.0	4.9

15276000 SHIP CREEK NEAR ANCHORAGE

LOCATION.--Lat 61°13′32″, long 149°38′06″, in SW$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 9, T. 13 N., R. 2 W. (Anchorage A-8 quad), Municipality of Anchorage, Hydrologic Unit 19020401, in Fort Richardson Military Reservation, on left bank, 800 ft downstream from diversion dam, 3.3 mi upstream from North Fork Ship Creek, and 7.8 mi east of intersection of Seward and Glenn Highways in Anchorage.

DRAINAGE AREA.--90.5 mi^2.

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1936: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 490 ft above sea level, from topographic map. Prior to August 22, 1985, water-stage recorder at dam 800 ft upstream. See WSP 1936 for history of changes prior to October 1, 1954.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Discharge data represent the net flow remaining after diversion for water supply to Fort Richardson, Elmendorf Air Force Base, and Municipality of Anchorage. Average diversion for water year 2002 was 7.43 ft^3/s. Diversion began in 1944. Magnitude of discharges downstream of dam may be affected by periodic spillway adjustment.

COOPERATION.--Gage inspected and records of diversion provided by Office of Post Engineers, Fort Richardson.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	e80	e55	e42	e36	e30	e26	81	493	233	105	163
2	117	e75	e50	e42	e34	e30	e26	68	453	233	100	163
3	117	e75	e50	e42	e32	e30	e26	65	429	223	98	152
4	127	e75	e50	e42	e34	e30	e26	64	417	231	97	146
5	130	e70	e50	e42	e34	e30	e24	67	404	219	96	145
6	133	e70	e50	e42	e34	e30	e24	73	409	211	103	195
7	128	e70	e50	e40	e34	e28	e24	73	408	202	98	185
8	125	e70	e50	e40	e34	e28	e22	81	404	193	112	182
9	123	e65	e50	e40	e34	e28	e24	93	384	188	114	178
10	125	e65	e50	e40	e34	e28	e24	90	353	179	107	173
11	123	e65	e55	e40	e32	e28	e26	88	336	171	132	168
12	e115	e65	e50	e40	e32	e28	e26	95	321	163	151	200
13	e110	e65	e48	e40	e32	e28	e28	116	321	168	219	204
14	111	e65	e46	e38	e32	e28	e28	140	330	164	193	197
15	111	e65	e46	e38	e32	e28	e28	158	391	158	171	193
16	e100	e70	e46	e38	e32	e28	e30	162	435	154	152	184
17	e100	e65	e46	e38	e32	e28	e30	208	462	151	138	177
18	105	e65	e46	e38	e32	e28	31	278	467	184	129	170
19	e100	e65	e50	e38	e32	e28	32	356	439	168	123	167
20	e100	e65	e46	e36	e32	e28	32	448	378	156	154	160
21	e95	e65	e46	e36	e32	e28	32	512	329	149	192	154
22	e95	e65	e44	e36	e32	e28	32	561	298	145	208	148
23	e95	e65	e44	e36	e30	e28	32	570	299	143	207	143
24	e90	e65	e44	e36	e30	e26	32	599	291	162	186	168
25	e90	e65	e44	e36	e30	e26	32	643	290	159	170	194
26	e90	e60	e55	e36	e30	e26	33	677	271	151	167	225
27	e85	e60	e50	e36	e30	e26	37	660	256	159	161	278
28	e85	e60	e46	e36	e30	e26	39	611	248	151	154	280
29	e85	e55	e44	e36	---	e26	56	560	243	135	152	273
30	e80	e55	e44	e36	---	e26	70	560	241	117	167	294
31	e80	---	e44	e36	---	e26	---	535	---	110	170	---
TOTAL	3290	1985	1489	1192	904	864	932	9292	10800	5330	4526	5659
MEAN	106.1	66.17	48.03	38.45	32.29	27.87	31.07	299.7	360.0	171.9	146.0	188.6
MAX	133	80	55	42	36	30	70	677	493	233	219	294
MIN	80	55	44	36	30	26	22	64	241	110	96	143
AC-FT	6530	3940	2950	2360	1790	1710	1850	18430	21420	10570	8980	11220

ADJUSTED TO INCLUDE DIVERSION

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	112	72.5	54.6	44.7	36.6	33.0	36.0	306	366	180	168	194
CFSM	1.24	0.80	0.60	0.49	0.40	0.36	0.40	3.39	4.04	1.99	1.85	2.14
IN	1.43	0.89	0.70	0.57	0.44	0.42	0.44	3.90	4.51	2.30	2.14	2.39
AC-FT	6890	4320	3360	2750	2110	2030	2140	18840	21770	11090	10320	11550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	148.6	77.39	47.22	31.27	22.26	16.83	24.92	166.9	453.7	305.5	207.6	210.6
MAX	318	177	107	79.3	54.6	42.1	69.7	456	798	645	510	471
(WY)	1994	1953	1948	1961	1961	1947	1990	1990	1977	1980	1981	1967
MIN	48.7	24.3	13.9	7.13	5.36	3.61	4.77	39.9	132	72.0	73.0	55.8
(WY)	1969	1969	1969	1956	1983	1956	1954	1971	1996	1996	1996	1969

\# See Period of Record and Remarks. Values shown on this page are unadjusted for diversion, unless otherwise noted
e Estimated

15276000 SHIP CREEK NEAR ANCHORAGE—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1947 - 2002#	
ANNUAL TOTAL	58906		46263			
ANNUAL MEAN	161.4		126.7		143.1	
ANNUAL MEAN	*170		*134		*161	
HIGHEST ANNUAL MEAN					223	1980
LOWEST ANNUAL MEAN					67.3	1969
HIGHEST DAILY MEAN	826	Jun 18	677	May 26	1420	Aug 9 1971
LOWEST DAILY MEAN	a27	Apr 5	22	Apr 8	b0.00	Jan 2 1956
ANNUAL SEVEN-DAY MINIMUM	28	Apr 5	24	Apr 4	0.43	Jan 9 1956
MAXIMUM PEAK FLOW			750	May 25	1860	Jun 21 1949
MAXIMUM PEAK STAGE			5.90	May 25	c3.44	Jun 21 1949
MAXIMUM PEAK STAGE					d6.52	Jun 21 1949
INSTANTANEOUS LOW FLOW					0.00	Jan 2 1956
ANNUAL RUNOFF (AC-FT)	116800		91760		103700	
ANNUAL RUNOFF (AC-FT)	*122900		*97200		*116600	
ANNUAL RUNOFF (CFSM)	*1.87		*1.48		*1.78	
ANNUAL RUNOFF (IN)	*25.4		*20.1		*24.2	
10 PERCENT EXCEEDS	511		296		369	
50 PERCENT EXCEEDS	65		73		76	
90 PERCENT EXCEEDS	32		28		14	

See Period of Record and Remarks. Values shown on this page are unadjusted for diversion, unless otherwise noted
* Adjusted to account for diversion, see Remarks
a Apr. 5 and Apr. 7
b No flow during one or more days in water years 1956, 1960, 1969, and 1971
c Site and datum then in use
d Current site and datum

15278000 EKLUTNA LAKE NEAR PALMER

LOCATION.--Lat 61°24'39", long 149°07'20", in NE1/4 NE1/4 sec. 18, T. 15 N., R. 2 E. (Anchorage B-6 quad), Municipality of Anchorage, Hydrologic Unit 19020402, on north shore, 0.7 mi upstream from lake outlet, 12 mi upstream from mouth of Eklutna River, and 14 mi south of Palmer.

DRAINAGE AREA.--119 mi^2.

PERIOD OF RECORD.--November 1946 to September 1962 (fragmentary after January 1955), June 1983 to current year. Fragmentary records for the period October 1962 to June 1983 available from Eklutna Hydroelectric Project.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by Alaska Power Administration). Prior to June 1983, non-recording gage at lake outlet at datum of 859.8 ft above sea level.

REMARKS.--Lake outlet consists of earth and rockfill dam with uncontrolled spillway crest at an elevation of 871 ft. Prior to 1965, control structure 1400 ft upstream with spillway crest at elevation of 867.5 ft which could be flash-boarded to elevation of 871 ft. Outflow was controlled by the flash boards and sluice gates. Dead storage below elevation of 859 ft. Reservoir is used for power generation and water supply. GOES satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 877.68 ft, September 25, 1995; minimum observed, 814.2 ft, June 1, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 867.14 ft, October 1; minimum, 833.51 ft, May 19.

GAGE HEIGHT from DCP, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	867.05	863.04	860.00	855.75	851.71	848.02	842.43	834.87	835.08	841.60	856.17	864.31
2	866.93	862.96	859.91	855.66	851.58	847.89	842.22	834.73	835.16	841.97	856.51	864.41
3	866.82	862.80	859.84	855.57	851.42	847.77	842.02	834.56	835.22	842.34	856.87	864.46
4	866.73	862.61	859.70	855.48	851.27	847.62	841.77	834.44	835.31	842.88	857.36	864.53
5	866.72	862.47	859.55	855.38	851.12	847.46	841.56	834.34	835.44	843.49	857.86	864.63
6	866.75	862.36	859.39	855.33	851.00	847.30	841.35	834.25	835.57	844.03	858.39	864.84
7	866.64	862.22	859.21	855.25	850.90	847.16	841.14	834.30	835.70	844.62	858.87	865.02
8	866.45	862.07	859.06	855.11	850.78	847.04	840.94	834.35	835.85	845.15	859.33	865.13
9	866.26	861.95	858.95	855.01	850.66	846.91	840.71	834.40	835.94	845.61	859.77	865.16
10	866.06	861.86	858.81	854.91	850.59	846.77	840.50	834.46	836.00	845.98	860.15	865.18
11	865.87	861.76	858.65	854.76	850.52	846.63	840.30	834.40	836.04	846.35	860.55	865.18
12	865.69	861.67	858.50	854.65	850.38	846.48	840.09	834.29	836.05	846.85	861.00	865.13
13	865.53	861.57	858.38	854.54	850.21	846.36	839.81	834.14	836.07	847.36	861.47	865.09
14	865.43	861.49	858.24	854.37	850.05	846.22	839.60	834.02	836.11	847.90	861.78	865.16
15	865.30	861.41	858.09	854.21	849.89	846.02	839.42	833.88	836.22	848.41	861.96	865.22
16	865.18	861.35	857.97	854.10	849.73	845.85	839.21	833.72	836.40	848.84	862.04	865.19
17	865.04	861.30	857.79	853.96	849.59	845.66	838.94	833.59	836.63	849.27	862.13	865.09
18	864.93	861.27	857.60	853.83	849.47	845.42	838.62	833.54	836.93	849.85	862.25	864.98
19	864.85	861.19	857.38	853.69	849.34	845.16	838.27	833.57	837.27	850.47	862.42	864.84
20	864.75	861.10	857.18	853.55	849.20	844.87	837.96	833.58	837.61	850.99	862.69	864.70
21	864.67	860.99	857.01	853.35	849.08	844.62	837.64	833.62	837.95	851.48	863.02	864.57
22	864.51	860.91	856.87	853.19	848.97	844.39	837.27	833.69	838.30	851.97	863.33	864.44
23	864.34	860.81	856.76	853.04	848.86	844.25	836.92	833.73	838.69	852.47	863.59	864.29
24	864.19	860.69	856.62	852.87	848.75	844.13	836.53	833.79	839.09	853.13	863.77	864.19
25	864.00	860.60	856.44	852.68	848.65	844.00	836.18	833.94	839.54	853.77	863.91	864.18
26	863.83	860.49	856.33	852.54	848.52	843.78	835.85	834.16	839.92	854.24	863.97	864.20
27	863.75	860.37	856.27	852.43	848.35	843.55	835.56	834.38	840.20	854.64	863.98	864.24
28	863.70	860.26	856.17	852.29	848.17	843.32	835.29	834.56	840.46	854.96	863.96	864.23
29	863.55	860.15	856.05	852.13	---	843.10	835.14	834.67	840.76	855.21	864.01	864.21
30	863.35	860.07	855.92	851.97	---	842.84	835.00	834.83	841.16	855.50	864.14	864.14
31	863.17	---	855.82	851.84	---	842.61	---	834.98	---	855.82	864.22	---
MEAN	865.23	861.46	857.89	853.98	849.96	845.59	838.94	834.19	837.22	848.94	861.34	864.70
MAX	867.05	863.04	860.00	855.75	851.71	848.02	842.43	834.98	841.16	855.82	864.22	865.22
MIN	863.17	860.07	855.82	851.84	848.17	842.61	835.00	833.54	835.08	841.60	856.17	864.14

15280200 EKLUTNA RIVER AT OLD GLENN HIGHWAY AT EKLUTNA

LOCATION.--Lat 61°27′01″, long 149°22′02″, in NE$\frac{1}{4}$ SW$\frac{1}{4}$ NE$\frac{1}{4}$ sec. 25, T. 16 N., R. 1 W. (Anchorage B-7 quad), Municipality of Anchorage, Hydrologic Unit 19020402, on right bank, 1.3 mi upstream from mouth, 0.7 mi south of Eklutna.

DRAINAGE AREA.--172 mi^2.

PERIOD OF RECORD.--May 1 to September 30, 2002.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records are fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge during period May to September, 111 ft^3/s, May 26 and 27, gage-height, 85.79 ft; minimum daily discharge, 26 ft^3/s, May 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	‡40	86	62	46	69
2	---	---	---	---	---	---	---	e32	85	61	47	69
3	---	---	---	---	---	---	---	e28	77	61	47	67
4	---	---	---	---	---	---	---	e26	74	59	49	65
5	---	---	---	---	---	---	---	e27	82	58	48	65
6	---	---	---	---	---	---	---	e28	82	57	48	76
7	---	---	---	---	---	---	---	e28	79	55	50	71
8	---	---	---	---	---	---	---	e29	80	55	52	70
9	---	---	---	---	---	---	---	e30	76	55	56	74
10	---	---	---	---	---	---	---	‡31	75	56	52	77
11	---	---	---	---	---	---	---	e32	71	55	55	77
12	---	---	---	---	---	---	---	e33	70	54	59	76
13	---	---	---	---	---	---	---	e34	68	54	66	73
14	---	---	---	---	---	---	---	e35	74	53	70	70
15	---	---	---	---	---	---	---	‡36	85	53	76	68
16	---	---	---	---	---	---	---	38	90	53	76	66
17	---	---	---	---	---	---	---	42	90	51	74	64
18	---	---	---	---	---	---	---	48	87	53	69	63
19	---	---	---	---	---	---	---	53	82	50	69	61
20	---	---	---	---	---	---	---	61	81	52	73	59
21	---	---	---	---	---	---	---	69	82	49	70	57
22	---	---	---	---	---	---	---	72	80	48	71	55
23	---	---	---	---	---	---	---	69	76	49	70	54
24	---	---	---	---	---	---	---	75	74	51	76	53
25	---	---	---	---	---	---	---	82	73	51	80	53
26	---	---	---	---	---	---	---	97	72	50	72	57
27	---	---	---	---	---	---	---	104	70	52	68	57
28	---	---	---	---	---	---	---	91	71	50	65	55
29	---	---	---	---	---	---	---	84	68	48	66	55
30	---	---	---	---	---	---	---	87	66	48	68	56
31	---	---	---	---	---	---	---	87	---	48	70	---
TOTAL	---	---	---	---	---	---	---	1628	2326	1651	1958	1932
MEAN	---	---	---	---	---	---	---	52.52	77.53	53.26	63.16	64.40
MAX	---	---	---	---	---	---	---	104	90	62	80	77
MIN	---	---	---	---	---	---	---	26	66	48	46	53
AC-FT	---	---	---	---	---	---	---	3230	4610	3270	3880	3830
CFSM	---	---	---	---	---	---	---	0.31	0.45	0.31	0.37	0.37
IN.	---	---	---	---	---	---	---	0.35	0.50	0.36	0.42	0.42

‡ Result of discharge measurement
e Estimated

15281000 KNIK RIVER NEAR PALMER

LOCATION.--Lat 61°30′18″, long 149°01′50″, in NE$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 2, T.16 N., R.2 E. (Anchorage C-6 quad), Matanuska-Susitna Borough, Hydrologic Unit 19020402, near the right bank on downstream side of bridge on Old Glenn Highway, 7 mi south of Palmer, 7 mi upstream from Alaska Railroad bridge, 9 mi downstream from Friday Creek, and about 17 mi downstream from Knik Glacier.

DRAINAGE AREA.--1,180 mi^2, approximately.

PERIOD OF RECORD.--October 1959 to January 1988, annual maximum, water year 1989, October 1991 to September 1992, and April, 2001 to current year.

REVISED RECORDS.--WRD-AK-77-1: 1974-75(M).

GAGE.--Water-stage recorder. Datum of gage is 27.51 ft above National Geodetic Vertical Datum of 1929 (surveys show a correction of -2.69 ft needed after earthquake of Mar. 27, 1964. Correction used beginning in 1985) Prior to June 27, 1960, nonrecording gage, and June 27, 1960 to Apr. 25,1974, water-stage recorder at old bridge 100 ft upstream at original 1929 datum. Apr. 26, 1974 to Apr. 18, 1976, recording gage at site 0.4 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flood peaks due to outbreak of glacier-dammed Lake George, 1948-62, 1964, 1965, published in WSP 1936. Streamflow augmented by glaciers, which cover 54 percent of the basin.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1948, 359,000 ft^3/s, July 18, 1958, gage height, 25.30 ft, at site in use beginning 1959, from outbreak of glacier-dammed Lake George.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6040	e2200	e1500	e1200	e900	e850	e950	e1300	14700	22800	26000	14000
2	6020	e2200	e1500	e1200	e900	e850	e950	e1600	13600	e23000	26100	13300
3	5670	e2200	e1500	e1200	e900	e850	e950	e1600	13100	e24000	26200	12500
4	6270	e2100	e1500	e1100	e900	e850	e950	e1500	12800	e23000	28200	11500
5	7430	e2100	e1500	e1100	e900	e850	e950	e1500	12500	e23000	29000	11800
6	8300	e2100	e1500	e1100	e900	e850	e950	e1700	11800	e22000	29800	13800
7	7840	e2000	e1400	e1100	e900	e850	e950	e1800	11400	e23000	29400	13100
8	7020	e2000	e1400	e1100	e900	e850	e950	e2000	12100	e24000	28700	11700
9	6660	e2000	e1400	e1100	e900	e850	e950	e2200	12600	e23000	27300	10300
10	6350	e2000	e1400	e1100	e900	e850	e950	e2400	11900	e22000	24100	9110
11	5890	e1900	e1400	e1100	e850	e850	e950	e2800	12300	23200	22800	8040
12	5130	e1900	e1400	e1100	e850	e850	e950	e3200	12500	24600	23500	7460
13	4560	e1900	e1400	e1000	e850	e850	e1000	e3100	12700	25400	24700	7800
14	4040	e1900	e1400	e1000	e850	e850	e1000	e3600	12600	25600	22800	9210
15	3750	e1800	e1400	e1000	e850	e850	e1000	e4000	13900	25000	20300	10200
16	e3500	e1800	e1300	e1000	e850	e850	e1000	e5000	16500	24700	17500	8950
17	3350	e1800	e1300	e1000	e850	e850	e1000	5570	19200	26200	15700	7610
18	3180	e1800	e1300	e1000	e850	e850	e1000	6130	21100	29600	17000	6690
19	3070	e1800	e1300	e1000	e850	e850	e1000	7080	22600	29300	19100	5860
20	e3000	e1700	e1300	e1000	e850	e900	e1000	8010	22000	28500	20300	5280
21	2920	e1700	e1300	e1000	e850	e900	e1000	9040	21200	27800	21200	4340
22	2870	e1700	e1300	e950	e850	e900	e1000	10100	20400	28000	21700	3720
23	e2800	e1700	e1300	e950	e850	e900	e1000	10100	20500	28500	22700	3750
24	e2700	e1700	e1300	e950	e850	e900	e1000	10600	19500	32300	22000	4250
25	e2600	e1600	e1200	e950	e850	e900	e1000	11200	20000	33600	19900	5540
26	e2500	e1600	e1200	e950	e850	e900	e1000	12000	20300	32400	17600	7210
27	e2500	e1600	e1200	e950	e850	e900	e1000	14200	19400	29200	15600	9400
28	e2400	e1600	e1200	e950	e850	e900	e1100	14100	19900	25300	13300	9750
29	e2400	e1600	e1200	e950	---	e900	e1200	13700	20400	22900	13400	9430
30	e2300	e1600	e1200	e950	---	e900	e1300	16200	21400	23000	14200	8800
31	e2300	---	e1200	e950	---	e900	---	15800	---	24700	14200	---
TOTAL	135360	55600	41700	32000	24300	26950	30000	203130	494900	799600	674300	264400
MEAN	4366	1853	1345	1032	867.9	869.4	1000	6553	16500	25790	21750	8813
MAX	8300	2200	1500	1200	900	900	1300	16200	22600	33600	29800	14000
MIN	2300	1600	1200	950	850	850	950	1300	11400	22000	13300	3720
AC-FT	268500	110300	82710	63470	48200	53460	59500	402900	981600	1586000	1337000	524400
CFSM	3.70	1.57	1.14	0.87	0.74	0.74	0.85	5.55	14.0	21.9	18.4	7.47
IN.	4.27	1.75	1.31	1.01	0.77	0.85	0.95	6.40	15.60	25.21	21.26	8.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)#

MEAN	4346	1776	968.8	870.1	731.2	651.7	913.9	3775	12800	23560	21380	11260
MAX	9419	4844	1932	3781	2464	1314	1534	7347	19960	37450	28300	16960
(WY)	1970	1965	1977	1981	1977	1977	1983	1981	1969	1960	1979	1974
MIN	1782	637	500	460	338	260	348	1039	2598	17440	15260	6594
(WY)	1982	1969	1974	1976	1962	1962	1972	1965	1965	1970	1969	1992

\# See Period of Record; partial years used in monthly statistics
e Estimated

15281000 KNIK RIVER NEAR PALMER—Continued

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1960 - 2002#	
ANNUAL TOTAL	2782240			
ANNUAL MEAN	7623		7002	
HIGHEST ANNUAL MEAN			13800	2001
LOWEST ANNUAL MEAN			2286	1988
HIGHEST DAILY MEAN	33600	Jul 25	341000	Jul 26 1961
LOWEST DAILY MEAN	a850	Feb 11	b260	Mar 1 1962
ANNUAL SEVEN-DAY MINIMUM	850	Feb 11	260	Mar 1 1962
MAXIMUM PEAK FLOW	34800	Jul 25	cd355000	Jul 26 1961
MAXIMUM PEAK STAGE	11.96	Jul 25	24.35	Jul 17 1960
ANNUAL RUNOFF (AC-FT)	5519000		5072000	
ANNUAL RUNOFF (CFSM)	6.46		5.93	
ANNUAL RUNOFF (INCHES)	87.71		80.62	
10 PERCENT EXCEEDS	23000		21200	
50 PERCENT EXCEEDS	2000		2000	
90 PERCENT EXCEEDS	850		500	

See Period of Record; partial years used in monthly statistics
a Feb. 11 to Mar. 19
b Mar. 1-31, 1962
c Site then in use, caused by release of stored water (Lake George) behind Knik Glacier
d Gage height, 24.3 ft

15284000 MATANUSKA RIVER AT PALMER

LOCATION.--Lat 61°36′33″, long 149°04′15″, in SE¼ NW¼ sec. 34, T. 18 N., R. 2 E. (Anchorage C-6 quad), Matanuska-Susitna Borough, Hydrologic Unit 19020402, on downstream left bank of old Glenn Highway bike path bridge, and 1 mi east of Palmer.

DRAINAGE AREA.--2,070 mi^2, approximately.

PERIOD OF RECORD.--April 1949 to September 1973, May 1985 to September 1986, October 1991 to September 1992, and May 2000 to current year. Annual maximum, water year 1974 and 1995.

GAGE.--Water-stage recorder. Datum of gage is 170.92 ft above National Geodetic Vertical Datum of 1929 (Alaska Railroad Commission benchmark, prior to Mar. 27,1964 earthquake). Prior to Nov. 2, 1950, non-recording gage at bridge 20 ft upstream at same datum. Nov.2,1950 to Apr.30,1952, non-recording gage at current site and same datum. May 1, 1952 to Sep.30, 1973, July 19 to Oct. 20, 1987, and Oct. 1, 1991 to Sep.30, 1992, water-stage recorder at site 100 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Rain gage at station. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 21,000 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jul 18	0700	*a15,600	*11.51

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2160	e1200	e850	e700	e550	e550	e500	4470	7320	9860	8960	5540
2	2130	e1200	e850	e700	e550	e550	e500	3440	6870	9850	9490	5770
3	2020	e1200	e800	e700	e550	e500	e500	2980	6340	9700	10000	5650
4	2060	e1100	e800	e700	e550	e500	e500	2730	6190	11600	11800	5220
5	2040	e1100	e800	e700	e550	e500	e500	2400	6250	10800	12900	5210
6	2080	e1100	e800	e750	e550	e500	e500	2380	6250	9310	13800	6430
7	2000	e1100	e800	e700	e550	e500	e500	2330	6070	8910	12300	6210
8	1950	e1100	e800	e650	e550	e500	e500	2380	6360	9500	10900	5700
9	1900	e1000	e800	e700	e550	e500	e500	2570	5860	10300	10300	5240
10	1890	e1000	e800	e650	e550	e500	e500	2600	5270	9520	9060	5000
11	1860	e1000	e800	e650	e550	e500	e500	2500	5170	10000	8720	4590
12	1750	e1000	e750	e650	e550	e500	e500	2390	5190	10700	9530	4220
13	1630	e1000	e750	e650	e550	e500	e500	2520	5280	10600	11100	3980
14	1590	e950	e750	e700	e550	e500	e500	3000	5470	10500	10000	3780
15	1550	e950	e750	e700	e550	e500	e500	3270	6490	10600	9000	3660
16	1510	e950	e750	e700	e550	e490	e500	3050	7860	11000	7970	3620
17	1480	e950	e750	e650	e550	e490	e500	3190	9550	13500	7570	3520
18	1490	e950	e750	e600	e550	e490	e500	3820	10200	14700	7780	3480
19	1520	e950	e750	e600	e550	e490	e500	4960	10900	13300	8250	3370
20	1520	e900	e750	e600	e550	e490	e500	5850	9340	12000	9040	3320
21	1550	e900	e750	e600	e550	e490	e500	8430	8750	11700	9490	3090
22	1480	e900	e750	e600	e550	e490	e500	9510	8370	11500	8910	2850
23	1440	e900	e750	e600	e550	e490	e500	8750	8580	11100	8000	2690
24	e1400	e900	e700	e600	e550	e490	e500	9280	8480	11700	7360	2650
25	e1400	e900	e700	e600	e550	e490	e520	10400	10100	11600	7020	2920
26	e1300	e850	e750	e600	e550	e490	e540	10900	10400	10700	6710	3230
27	e1300	e850	e700	e600	e550	e490	e560	10000	8780	9130	6290	4030
28	e1300	e850	e700	e600	e550	e490	e650	8330	8480	8030	5770	3810
29	e1300	e850	e700	e600	---	e490	e900	8420	8650	7620	5650	3580
30	e1200	e850	e700	e600	---	e490	e4000	8440	9630	8730	5510	3440
31	e1200	---	e700	e600	---	e490	---	7460	---	8980	5450	---
TOTAL	51000	29450	23550	20050	15400	15440	19170	162750	228450	327040	274630	125800
MEAN	1645	981.7	759.7	646.8	550.0	498.1	639.0	5250	7615	10550	8859	4193
MAX	2160	1200	850	750	550	550	4000	10900	10900	14700	13800	6430
MIN	1200	850	700	600	550	490	500	2330	5170	7620	5450	2650
AC-FT	101200	58410	46710	39770	30550	30630	38020	322800	453100	648700	544700	249500
CFSM	0.79	0.47	0.37	0.31	0.27	0.24	0.31	2.54	3.68	5.10	4.28	2.03
IN.	0.92	0.53	0.42	0.36	0.28	0.28	0.34	2.92	4.11	5.88	4.94	2.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1929	984.9	728.7	621.8	520.1	473.5	636.8	2744	10120	13080	9910	4893
MAX	3093	1793	1024	821	629	583	985	6019	17250	18750	15730	8966
(WY)	2001	1972	1972	1961	2001	2001	1964	1960	1964	2000	1971	1951
MIN	1166	568	440	349	381	360	465	1007	5415	9206	4992	2123
(WY)	1992	1959	1969	1959	1971	1971	1972	1966	1965	1973	1969	1969

a Peak discharge adjusted to exclude surge; peak gage-height not adjusted to exclude surge
e Estimated

15284000 MATANUSKA RIVER AT PALMER—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002#	
ANNUAL TOTAL	1547976		1292730			
ANNUAL MEAN	4241		3542		3825	
HIGHEST ANNUAL MEAN					4815	1957
LOWEST ANNUAL MEAN					2562	1969
HIGHEST DAILY MEAN	31300	Jun 29	14700	Jul 18	40700	Aug 10 1971
LOWEST DAILY MEAN	507	Apr 9	b490	Mar 16	234	Apr 25 1956
ANNUAL SEVEN-DAY MINIMUM	523	Apr 4	490	Mar 16	304	Apr 20 1956
MAXIMUM PEAK FLOW			a15600	Jul 18	c82100	Aug 10 1971
MAXIMUM PEAK STAGE			11.51	Jul 18	d13.60	Aug 10 1971
ANNUAL RUNOFF (AC-FT)	3070000		2564000		2771000	
ANNUAL RUNOFF (CFSM)	2.05		1.71		1.85	
ANNUAL RUNOFF (INCHES)	27.82		23.23		25.10	
10 PERCENT EXCEEDS	12700		9850		11700	
50 PERCENT EXCEEDS	1000		1300		1160	
90 PERCENT EXCEEDS	579		500		480	

\# See Period of Record; partial years used in monthly statistics
a Peak discharge adjusted to exclude surge; peak stage not adjusted to exclude surge
b Mar. 16 to 31
c From rating curve extended above 34,000 ft^3/s on basis of velocity-area study, from break-out of natural reservoir on Granite Creek tributary
d Site then in use

15290000 LITTLE SUSITNA RIVER NEAR PALMER

LOCATION.--Lat 61°42′37″, long 149°13′47″, in SE¼ NW¼ sec. 26, T. 19 N., R. 1 E. (Anchorage C-6 NW quad), Matanuska-Susitna Borough, Hydrologic Unit 19020505, on right bank 100 ft downstream from highway bridge on Wasilla-Fishhook Road, 1.5 mi north of road junction, 1.8 mi downstream from unnamed tributary, and 8 mi northwest of Palmer. Prior to October 1, 1991 at site 60 ft upstream.

DRAINAGE AREA.--61.9 mi^2.

PERIOD OF RECORD.--July 1948 to current year. Low-flow records not equivalent prior to January 1962 because most measurements below 300 ft^3/s were made at site 3.4 mi downstream.

GAGE.--Water-stage recorder. Datum of gage is 916.6 ft above sea level (river-profile survey). Prior to August 16, 1948, non-recording gage and August 17, 1948 to May 15, 1972, water-stage recorder on left bank; water-stage recorder on right bank, May 16, 1972 to September 30, 1991, at site 60 ft upstream. Prior to October 1, 1974, at datum 4.00 ft higher; October 1, 1974 to September 30, 1991, at datum 2.00 ft higher.

REMARKS.--Records fair except for October 16 to April 30 (flow under ice), and for discharges above 700 ft^3/s, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 21	2000	1270	5.37	Aug. 13	0415	*1600	*5.69
May 25	2230	*1600	5.68				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	e65	e37	29	24	21	18	151	572	303	186	305
2	112	e65	e37	29	23	21	18	94	441	283	185	282
3	108	e60	e36	29	23	20	18	77	430	274	189	258
4	137	e60	e36	28	23	20	18	74	434	644	193	240
5	124	e60	e36	29	23	20	18	68	512	337	188	246
6	122	e60	36	28	23	20	18	61	423	289	190	663
7	116	e55	34	28	23	20	18	55	386	268	177	528
8	109	e55	e34	28	23	20	18	60	385	267	310	429
9	107	e55	e34	28	23	e20	18	71	317	260	372	389
10	107	e50	e34	28	23	e20	18	65	301	232	314	359
11	104	e50	e34	27	22	e20	18	70	319	243	451	346
12	99	e48	e34	27	22	e20	18	84	326	265	668	492
13	93	e46	e34	27	22	e20	18	113	338	287	1180	497
14	96	e44	e32	27	22	e20	18	143	415	247	737	428
15	92	e44	e32	27	22	e19	18	145	516	224	535	391
16	e90	e44	e32	27	22	e19	18	133	616	225	418	371
17	e90	e43	e32	27	22	e19	18	194	682	229	359	359
18	86	e43	e32	27	22	e19	18	278	608	255	323	356
19	83	e43	e32	26	22	19	18	382	576	233	331	332
20	84	e42	32	26	21	19	18	573	465	215	693	313
21	82	e42	32	25	21	19	18	805	339	202	828	288
22	78	e41	32	25	21	19	18	854	312	193	787	267
23	77	e41	31	25	22	19	18	738	324	190	621	248
24	e75	e40	31	25	21	19	18	789	317	205	492	296
25	e75	e40	31	25	21	19	18	1080	399	240	418	416
26	e75	e39	31	25	21	19	19	1130	321	208	373	595
27	e70	e39	31	25	21	19	22	799	293	247	339	894
28	e70	e38	30	e25	21	18	e29	692	303	220	312	819
29	e70	e38	30	e24	---	18	e50	865	335	200	298	672
30	e70	e37	30	24	---	18	e170	802	313	194	290	674
31	e70	---	29	24	---	18	---	612	---	189	322	---
TOTAL	2879	1427	1018	824	619	601	740	12057	12318	7868	13079	12753
MEAN	92.9	47.6	32.8	26.6	22.1	19.4	24.7	389	411	254	422	425
MAX	137	65	37	29	24	21	170	1130	682	644	1180	894
MIN	70	37	29	24	21	18	18	55	293	189	177	240
MED	90	44	32	27	22	19	18	151	386	240	339	365
AC-FT	5710	2830	2020	1630	1230	1190	1470	23920	24430	15610	25940	25300
CFSM	1.50	0.77	0.53	0.43	0.36	0.31	0.40	6.28	6.63	4.10	6.82	6.87
IN.	1.73	0.86	0.61	0.50	0.37	0.36	0.44	7.25	7.40	4.73	7.86	7.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	137	62.4	40.1	30.7	24.8	20.3	25.2	221	666	496	408	304
MAX	391	134	61.7	54.1	41.2	29.7	68.0	649	1215	1047	909	651
(WY)	1984	1980	1980	1961	1982	1991	1990	1990	1977	1963	1971	1985
MIN	51.3	24.5	17.4	17.5	14.0	10.0	10.0	52.9	276	193	169	82.2
(WY)	1969	1969	1955	1959	1952	1956	1955	1971	1996	1996	1969	1969

\# See Period of Record for remark on low-flow records; partial years used in monthly statistics
e Estimated

15290000 LITTLE SUSITNA RIVER NEAR PALMER—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1948 - 2002#	
ANNUAL TOTAL	62434		66183			
ANNUAL MEAN	171		181		203	
HIGHEST ANNUAL MEAN					316	1949
LOWEST ANNUAL MEAN					95.8	1969
HIGHEST DAILY MEAN	1100	Jun 17	1180	Aug 13	5040	Aug 10 1971
LOWEST DAILY MEAN	a20	Mar 21	b18	Mar 28	c8.0	Apr 1 1956
ANNUAL SEVEN-DAY MINIMUM	20	Apr 2	18	Mar 28	8.0	Apr 1 1956
MAXIMUM PEAK FLOW			d1600	Aug 13	f7840	Aug 10 1971
MAXIMUM PEAK STAGE			5.69	Aug 13	g13.00	Aug 10 1971
INSTANTANEOUS LOW FLOW			16	Apr 21	8.0	Apr 1 1956
ANNUAL RUNOFF (AC-FT)	123800		131300		147200	
ANNUAL RUNOFF (CFSM)	2.76		2.93		3.28	
ANNUAL RUNOFF (INCHES)	37.52		39.77		44.60	
10 PERCENT EXCEEDS	432		494		565	
50 PERCENT EXCEEDS	53		65		68	
90 PERCENT EXCEEDS	22		19		20	

\# See Period of Record for remark on low-flow records; partial years used in monthly statistics
a Mar. 21 to Mar. 23, Mar. 31, Apr. 2, Apr. 5 to Apr. 7 and Apr. 9
b Mar. 28 to Apr. 25
c Apr. 1 to Apr. 20, 1956; and Mar. 11 and 12, 1957
d Also May 25
f From rating curve extended above 4,600 ft^3/s on basis of slope-area measurement of peak flow
g Gage height about 13.0 ft, from floodmarks; 9.84 ft in gage well;
12.30 ft at top of needle peak in gage well; at prior datum (WY 1974-91) at sites then in use

15292000 SUSITNA RIVER AT GOLD CREEK

LOCATION.--Lat 62°46′04″, long 149°41′28″, in NW$^1/_4$ sec. 20, T. 31 N., R. 2 W. (Talkeetna Mts. D-6 quad), Matanuska-Susitna Borough, Hydrologic Unit 19020501, near left bank under Alaska Railroad bridge, 0.1 mi downstream from Gold Creek, 0.9 mi north of Gold Creek railroad station, and 2.0 mi. downstream from Indian River.

DRAINAGE AREA.--6,160 mi^2, approximately.

PERIOD OF RECORD.--August 1949 to 1996 and May 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 676.50 ft above sea level. Prior to June 6, 1957, non-recording gage at same site and datum. June 7, 1957 to June 2, 1964, water-stage recorder at site 0.3 mi upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5800	e3200	e2200	e1700	e1500	e1400	e1300	e1900	19900	15200	14100	17600
2	e5600	e3200	e2200	e1600	e1500	e1300	e1200	e2000	18900	19700	13900	16200
3	e5500	e3200	e2100	e1600	e1500	e1300	e1200	e2100	17400	e22000	13900	14800
4	e6000	e3000	e2100	e1600	e1500	e1300	e1200	e2200	17000	e21000	e14000	13700
5	e6300	e3000	e2100	e1600	e1500	e1300	e1200	e2300	17500	e20000	e16500	12800
6	6760	e3000	e2100	e1600	e1500	e1300	e1200	e2400	18300	e24000	e18000	16900
7	7130	e2900	e2000	e1600	e1400	e1300	e1200	e2600	18600	e22000	22400	22800
8	7010	e2900	e2000	e1600	e1400	e1300	e1200	e2800	19000	e19000	29000	25100
9	6530	e2800	e2000	e1600	e1400	e1300	e1200	e3000	16800	e17000	31200	21700
10	e6000	e2800	e2000	e1600	e1400	e1300	e1200	e3200	14600	e16000	33800	18600
11	e5500	e2700	e2000	e1600	e1400	e1300	e1200	e3400	13400	e18000	31900	16100
12	e5500	e2700	e1900	e1600	e1400	e1300	e1200	e3800	13700	e16000	32900	17000
13	e5000	e2700	e1900	e1600	e1400	e1300	e1200	e4000	13500	e17000	34200	18300
14	e5000	e2600	e1900	e1600	e1400	e1300	e1200	e4400	13300	e17000	31500	16700
15	e4800	e2600	e1900	e1500	e1400	e1300	e1200	e5000	13100	e17000	26000	15200
16	e4600	e2600	e1900	e1500	e1400	e1300	e1200	e4600	13400	e16000	21200	14600
17	e4400	e2500	e1900	e1500	e1400	e1300	e1300	e6000	13800	e15000	18500	13500
18	e4400	e2500	e1900	e1500	e1400	e1300	e1300	e8000	14700	e17000	17200	12900
19	e4200	e2500	e1800	e1500	e1400	e1300	e1300	e12000	16500	e18000	16700	12300
20	e4200	e2400	e1800	e1500	e1400	e1300	e1300	e20000	19100	e19000	20500	11800
21	e4000	e2400	e1800	e1500	e1400	e1300	e1400	e30200	21500	e20000	28500	11400
22	e4000	e2400	e1800	e1500	e1400	e1300	e1400	e25800	18600	e19000	32900	10800
23	e3800	e2400	e1800	e1500	e1400	e1300	e1400	e25000	17100	e18000	34800	10100
24	e3800	e2300	e1800	e1500	e1400	e1300	e1400	e23000	17600	e16000	32700	10100
25	e3600	e2300	e1700	e1500	e1400	e1300	e1500	e24000	18500	17200	29200	13500
26	e3600	e2300	e1700	e1500	e1400	e1300	e1500	e25000	19800	19900	26000	17800
27	e3600	e2300	e1700	e1500	e1400	e1300	e1600	e24000	18100	20400	22200	22500
28	e3400	e2200	e1700	e1500	e1400	e1300	e1700	e21000	14700	19800	19600	21800
29	e3400	e2200	e1700	e1500	---	e1300	e1700	e20000	13800	17300	18100	21200
30	e3400	e2200	e1700	e1500	---	e1300	e1800	e22000	14200	14600	17600	19700
31	e3200	---	e1700	e1500	---	e1300	---	e21000	---	14500	18200	---
TOTAL	150030	78800	58800	48000	39800	40400	39900	356700	496400	562600	737200	487500
MEAN	4840	2627	1897	1548	1421	1303	1330	11510	16550	18150	23780	16250
MAX	7130	3200	2200	1700	1500	1400	1800	30200	21500	24000	34800	25100
MIN	3200	2200	1700	1500	1400	1300	1200	1900	13100	14500	13900	10100
AC-FT	297600	156300	116600	95210	78940	80130	79140	707500	984600	1116000	1462000	967000
CFSM	0.79	0.43	0.31	0.25	0.23	0.21	0.22	1.87	2.69	2.95	3.86	2.64
IN.	0.91	0.48	0.36	0.29	0.24	0.24	0.24	2.15	3.00	3.40	4.45	2.94

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6180	2657	1878	1590	1399	1289	1641	13460	26830	23900	21400	13710
MAX	12680	4192	3264	2452	2028	1900	4250	25630	50580	34400	37870	26510
(WY)	1987	1980	1958	1961	1972	1968	1990	1990	1964	1963	1981	1990
MIN	3124	1215	866	724	723	713	745	3745	15500	16010	8879	5093
(WY)	1970	1970	1970	1969	1969	1964	1964	1971	1969	1996	1969	1969

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002#	
ANNUAL TOTAL	3096130			
ANNUAL MEAN	8483		9698	
HIGHEST ANNUAL MEAN			13020	1990
LOWEST ANNUAL MEAN			5597	1969
HIGHEST DAILY MEAN	34800	Aug 23	85900	Jun 7 1964
LOWEST DAILY MEAN	a1200	Apr 2	b600	Feb 16 1950
ANNUAL SEVEN-DAY MINIMUM	1200	Apr 2	614	Feb 16 1950
MAXIMUM PEAK FLOW	36200	Aug 23	90700	Jun 7 1964
MAXIMUM PEAK STAGE	11.77	Aug 23	16.58	Jun 7 1964
MAXIMUM PEAK STAGE			c24.48	May 10 1954
ANNUAL RUNOFF (AC-FT)	6141000		7026000	
ANNUAL RUNOFF (CFSM)	1.38		1.57	
ANNUAL RUNOFF (INCHES)	18.70		21.39	
10 PERCENT EXCEEDS	21000		25400	
50 PERCENT EXCEEDS	2900		3300	
90 PERCENT EXCEEDS	1300		1100	

\# See Period of Record; partial years used in monthly statistics
a Apr. 2-16
b Feb. 16-20, 1950
c Maximum observed, ice jam
e Estimated

15292700 TALKEETNA RIVER NEAR TALKEETNA
(Hydrologic Bench-Mark Station)

LOCATION.--Lat 62°20′49″, long 150°01′01″, in NE$\frac{1}{4}$ sec. 16, T. 26 N., R. 4 W. (Talkeetna B-1 quad), Matanuska-Susitna Borough, Hydrologic Unit 19020503, on left bank 1.7 mi downstream from Chunilna Creek, 3.5 mi northeast of Talkeetna, and about 5 mi upstream from mouth.

DRAINAGE AREA.--1,996 mi^2.

REVISED RECORDS.-- WRD AK 2000-1: Drainage Area.

PERIOD OF RECORD.--June 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above sea level, from topographic map. From October 1, 1992 to September 30, 1994 at site 0.5 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2620	e1200	e750	e550	e500	e460	e400	e800	6990	6640	6470	8980
2	2920	e1200	e750	e550	e500	e460	e380	e900	5950	7340	6460	8130
3	2660	e1100	e750	e550	e500	e460	e380	e950	5670	6840	6610	7260
4	2680	e1100	e750	e550	e500	e460	e380	e1000	6160	8930	7150	6680
5	2780	e1100	e700	e550	e500	e460	e380	e1100	7980	8080	7420	6500
6	3050	e1100	e700	e550	e500	e460	e380	e1200	8170	6710	8030	11200
7	3030	e1100	e700	e550	e500	e460	e380	e1400	7840	6440	8600	11800
8	2750	e1000	e700	e550	e500	e440	e380	e1500	7900	6760	10500	10500
9	2590	e1000	e700	e550	e500	e440	e380	e1600	6150	6880	12100	9890
10	2610	e1000	e700	e550	e500	e440	e380	e1800	6370	5980	11400	9130
11	2660	e1000	e700	e550	e500	e440	e380	e2000	6240	6290	11900	8380
12	2430	e1000	e700	e550	e500	e440	e380	2240	5950	6810	14900	11600
13	2080	e1000	e700	e550	e500	e440	e360	2750	5750	6910	16000	13000
14	2040	e950	e700	e550	e500	e440	e360	3480	5590	6840	12700	10700
15	2100	e950	e650	e550	e500	e440	e380	4220	5990	6530	10200	9300
16	1880	e900	e650	e550	e500	e420	e380	3700	6170	6950	8570	8530
17	1790	e900	e650	e550	e500	e420	e400	5250	6630	7220	7780	7920
18	e1700	e900	e650	e550	e500	e420	e400	8300	7170	7530	7470	7390
19	e1700	e900	e650	e550	e500	e420	e400	12200	7240	8540	7710	6910
20	e1600	e850	e650	e550	e480	e420	e400	15400	7300	8180	11600	6590
21	e1600	e850	e650	e550	e480	e420	e400	20100	6200	7760	15500	6080
22	e1500	e850	e650	e550	e480	e420	e420	19000	5450	7690	15000	5620
23	e1500	e800	e600	e550	e480	e420	e460	15300	5350	7100	13100	5270
24	e1400	e800	e600	e550	e480	e420	e480	14300	5320	8590	11900	5460
25	e1400	e800	e600	e500	e480	e420	e500	14500	6540	8880	11200	8050
26	e1400	e800	e600	e500	e480	e400	e550	15200	8690	8140	10600	8010
27	e1300	e800	e600	e500	e480	e400	e600	13100	6850	7240	9490	11600
28	e1300	e800	e600	e500	e460	e400	e650	9440	6060	6760	8450	10700
29	e1300	e800	e600	e500	---	e400	e700	10200	6330	6330	8080	9630
30	e1200	e750	e600	e500	---	e400	e750	11400	6290	6160	8550	10200
31	e1200	---	e600	e500	---	e400	---	8970	---	6450	9190	---
TOTAL	62770	28300	20600	16700	13800	13340	13170	223300	196290	223500	314630	261010
MEAN	2025	943.3	664.5	538.7	492.9	430.3	439.0	7203	6543	7210	10150	8700
MAX	3050	1200	750	550	500	460	750	20100	8690	8930	16000	13000
MIN	1200	750	600	500	460	400	360	800	5320	5980	6460	5270
AC-FT	124500	56130	40860	33120	27370	26460	26120	442900	389300	443300	624100	517700
CFSM	1.01	0.47	0.33	0.27	0.25	0.22	0.22	3.61	3.28	3.61	5.08	4.36
IN.	1.17	0.53	0.38	0.31	0.26	0.25	0.25	4.16	3.66	4.17	5.86	4.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2778	1165	829.7	680.4	573.9	514.3	660.0	4791	10950	10290	9159	5874
MAX	10000	1992	1122	996	990	1058	1912	11510	19040	15410	16770	12090
(WY)	1987	1987	1987	1990	1990	1990	1990	1990	1971	1981	1971	1993
MIN	1424	672	538	457	401	285	396	2145	5207	7080	3787	2070
(WY)	1997	1992	1996	1996	1969	1982	1986	1971	1969	1969	1969	1969

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1964 - 2002#	
ANNUAL TOTAL	1299400		1387410			
ANNUAL MEAN	3560		3081		4035	
HIGHEST ANNUAL MEAN					5389	1990
LOWEST ANNUAL MEAN					2249	1969
HIGHEST DAILY MEAN	16200	Jun 12	20100	May 22	63200	Oct 11 1986
LOWEST DAILY MEAN	a500	Mar 22	b360	Apr 13	c260	Feb 27 1982
ANNUAL SEVEN-DAY MINIMUM	500	Mar 22	374	Apr 8	260	Feb 27 1982
MAXIMUM PEAK FLOW			22800	May 22	75700	Oct 11 1986
MAXIMUM PEAK STAGE			10.25	May 22	17.38	Oct 11 1986
ANNUAL RUNOFF (AC-FT)	2577000		2752000		2923000	
ANNUAL RUNOFF (CFSM)	1.78		1.90		2.02	
ANNUAL RUNOFF (INCHES)	24.22		25.86		27.47	
10 PERCENT EXCEEDS	10200		9730		10600	
50 PERCENT EXCEEDS	1100		1100		1400	
90 PERCENT EXCEEDS	550		420		500	

\# See Period of Record; partial years used in monthly statistics
a Mar. 22 to Apr. 1
b Apr. 13-14
c From Feb. 27 to Mar. 20, 1982
e Estimated

15294005 WILLOW CREEK NEAR WILLOW

LOCATION.--Lat 61°46′51″, long 149°53′04″, in NW¼ SE¼ sec. 31, T.20 N., R.3 W. (Anchorage D-8 quad), Matanuska-Susitna Borough, Hydrologic Unit 19020505, on the right bank, 0.9 mi downstream from unnamed tributary, 5.5 mi northeast of Willow, and 6.7 mi upstream from Deception Creek.

DRAINAGE AREA.--166 mi^2.

PERIOD OF RECORD.--June 1978 to September 1993, and May 2001 to current year.

REVISED RECORDS.--WRD-AK-80-1: 1979 (M).

GAGE.--Water-stage recorder. Elevation of gage is 350 ft above sea level from topographic map. Prior to Apr. 2, 1981 at site 0.2 mi upstream at different datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Rain gage at station. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge 2,300 ft^3/s and maximums (*).

Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Aug. 13	0600	*2120	*4.65

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	e120	e80	e65	e60	e50	e46	e300	929	433	217	660
2	253	e110	e75	e60	e60	e50	e46	e290	813	412	204	656
3	218	e110	e75	e60	e60	e50	e46	e280	742	387	193	558
4	321	e110	e75	e60	e60	e50	e46	288	779	519	186	512
5	291	e110	e75	e60	e60	e50	e44	243	943	412	179	499
6	308	e110	e75	e60	e60	e50	e44	211	856	365	221	1260
7	275	e100	e75	e60	e60	e50	e44	179	729	344	254	1070
8	249	e100	e75	e60	e60	e50	e44	185	712	321	595	932
9	235	e100	e75	e60	e55	e50	e42	258	605	303	720	849
10	246	e100	e75	e60	e55	e50	e42	229	568	288	501	789
11	244	e100	e75	e60	e55	e50	e42	212	610	276	750	752
12	221	e100	e70	e60	e55	e50	e42	248	654	e270	1040	1220
13	e200	e100	e70	e60	e55	e50	e40	344	659	e270	1610	1250
14	e190	e95	e70	e60	e55	e50	e40	453	681	e280	989	998
15	e180	e95	e70	e60	e55	e50	e40	455	722	e280	778	881
16	e170	e90	e70	e60	e55	e50	e40	386	770	e290	674	835
17	e160	e90	e70	e60	e55	e50	e38	549	789	e300	596	786
18	e160	e90	e70	e60	e55	e50	e38	674	760	293	528	819
19	e150	e90	e70	e60	e55	e50	e38	797	745	282	522	733
20	e150	e90	e70	e60	e55	e50	e40	963	708	253	1080	693
21	e140	e90	e70	e60	e55	e50	e40	1160	573	224	1280	637
22	e140	e85	e70	e60	e55	e50	e40	1230	510	211	1080	594
23	e140	e85	e70	e60	e55	e50	e40	1210	497	205	890	564
24	e140	e85	e65	e60	e55	e50	e40	1170	488	221	794	683
25	e140	e85	e65	e60	e55	e50	e40	1380	635	298	857	1010
26	e130	e85	e65	e60	e55	e50	e40	1450	531	293	774	1160
27	e130	e80	e65	e60	e55	e50	e42	1130	470	407	682	1670
28	e130	e80	e65	e60	e55	e48	e50	1020	459	359	618	1470
29	e120	e80	e65	e60	---	e48	e80	1150	459	326	583	1230
30	e120	e80	e65	e60	---	e48	e120	1190	456	266	604	1370
31	e120	---	e65	e60	---	e48	---	954	---	235	661	---
TOTAL	5876	2845	2190	1865	1580	1542	1374	20588	19852	9623	20660	27140
MEAN	189.5	94.83	70.65	60.16	56.43	49.74	45.80	664.1	661.7	310.4	666.5	904.7
MAX	321	120	80	65	60	50	120	1450	943	519	1610	1670
MIN	120	80	65	60	55	48	38	179	456	205	179	499
AC-FT	11660	5640	4340	3700	3130	3060	2730	40840	39380	19090	40980	53830
CFSM	1.14	0.57	0.43	0.36	0.34	0.30	0.28	4.00	3.99	1.87	4.01	5.45
IN.	1.32	0.64	0.49	0.42	0.35	0.35	0.31	4.61	4.45	2.16	4.63	6.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	391.8	157.5	107.3	84.94	73.02	63.62	90.87	636.5	1052	699.0	622.4	658.2
MAX	1197	364	152	112	98.8	97.5	205	1578	1500	1287	1286	1177
(WY)	1987	1980	1980	1980	1990	1990	1990	1990	1990	1980	1981	1993
MIN	177	81.5	57.3	57.1	52.9	33.7	45.8	340	484	310	307	259
(WY)	1985	1985	1981	1981	1981	1982	2002	1985	1981	2002	1978	1978

See Period of Record; partial years used in monthly statistics
e Estimated

15294005 WILLOW CREEK NEAR WILLOW—Continued

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1978 - 2002#	
ANNUAL TOTAL	115135			
ANNUAL MEAN	315.4		395.9	
HIGHEST ANNUAL MEAN			536	1990
LOWEST ANNUAL MEAN			315	2002
HIGHEST DAILY MEAN	1670	Sep 27	8670	Oct 11 1986
LOWEST DAILY MEAN	a38	Apr 17	b33	Mar 9 1982
ANNUAL SEVEN-DAY MINIMUM	39	Apr 13	33	Mar 9 1982
MAXIMUM PEAK FLOW	2120	Aug 13	c12000	Oct 11 1986
MAXIMUM PEAK STAGE	4.65	Aug 13	9.01	Oct 11 1986
MAXIMUM PEAK STAGE			d9.40	Dec 18 1986
ANNUAL RUNOFF (AC-FT)	228400		286800	
ANNUAL RUNOFF (CFSM)	1.90		2.39	
ANNUAL RUNOFF (INCHES)	25.80		32.41	
10 PERCENT EXCEEDS	852		1000	
50 PERCENT EXCEEDS	120		195	
90 PERCENT EXCEEDS	50		62	

\# See Period of Record; partial years used in monthly statistics
a Apr. 17-19
b Mar. 9-30, 1982
c From rating curve extended above 3,900 ft^3/s on basis of slope-area measurement of peak flow
d Backwater from ice

15294700 JOHNSON RIVER ABOVE LATERAL GLACIER NEAR TUXEDNI BAY

LOCATION.--Lat 60°05’41", long 152°54’38", in SW$^1/_4$ NW$^1/_4$ NW$^1/_4$ sec. 16, T. 1 S., R. 21 W. (Kenai A-8 quad), Kenai Peninsula Borough, Hydrologic Unit 19020602, on the right bank about 20 mi upstream from mouth, 10 mi south of Tuxedni Bay, and 60 mi northeast of Iliamna.

DRAINAGE AREA.--24.8 mi^2.

PERIOD OF RECORD.--July 1995 to current year (no winter record).

GAGE.--Water-stage recorder. Elevation of gage is 450 ft above sea level, from topographic map. July 1995 to June 1996, at site 300 ft downstream at same datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 8,800 ft^3/s, September 21, 1995 from rating curve extended above 3,500 ft^3/s on the basis of slope-area measurement, gage height 14.60 ft at site then in use, gage height 16.27 ft at the current site; minimum not determined, occurs during the winter.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge for the period October 2001 and May through September 2002, 2,080 ft^3/s, September 24, gage height, 12.68 ft; minimum not determined, occurs during the winter.

REMARKS.--Records are fair except for estimated discharges, which are poor. Rain gage at station. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	---	---	---	---	---	---	e50	525	837	685	481
2	186	---	---	---	---	---	---	e46	463	796	681	480
3	460	---	---	---	---	---	---	e42	507	778	687	420
4	1090	---	---	---	---	---	---	e36	536	849	662	369
5	863	---	---	---	---	---	---	e32	505	805	604	477
6	528	---	---	---	---	---	---	e32	535	765	588	464
7	378	---	---	---	---	---	---	e34	560	672	567	393
8	302	---	---	---	---	---	---	e38	589	595	556	334
9	349	---	---	---	---	---	---	e40	953	545	563	314
10	259	---	---	---	---	---	---	e40	869	524	611	257
11	194	---	---	---	---	---	---	e42	635	604	692	210
12	171	---	---	---	---	---	---	e44	603	647	624	594
13	151	---	---	---	---	---	---	e44	587	590	606	1660
14	140	---	---	---	---	---	---	e46	603	527	537	1430
15	129	---	---	---	---	---	---	e50	726	538	493	910
16	120	---	---	---	---	---	---	e60	814	572	559	597
17	e115	---	---	---	---	---	---	e90	814	690	628	807
18	108	---	---	---	---	---	---	e150	824	825	619	589
19	104	---	---	---	---	---	---	e250	774	733	558	399
20	99	---	---	---	---	---	---	e350	645	655	633	273
21	95	---	---	---	---	---	---	e600	636	651	759	219
22	e90	---	---	---	---	---	---	e1000	666	769	749	221
23	e85	---	---	---	---	---	---	e1500	653	962	644	709
24	e85	---	---	---	---	---	---	e1300	689	1110	483	1630
25	e80	---	---	---	---	---	---	e900	725	831	422	1040
26	e80	---	---	---	---	---	---	e800	717	925	389	967
27	e75	---	---	---	---	---	---	e750	776	763	393	627
28	e75	---	---	---	---	---	---	e650	697	639	418	434
29	e70	---	---	---	---	---	---	e600	740	647	398	322
30	e65	---	---	---	---	---	---	e550	818	682	483	278
31	e60	---	---	---	---	---	---	584	---	717	464	---
TOTAL	6839	---	---	---	---	---	---	10750	20184	22243	17755	17905
MEAN	220.6	---	---	---	---	---	---	346.8	672.8	717.5	572.7	596.8
MAX	1090	---	---	---	---	---	---	1500	953	1110	759	1660
MIN	60	---	---	---	---	---	---	32	463	524	389	210
AC-FT	13570	---	---	---	---	---	---	21320	40030	44120	35220	35510
CFSM	8.90	---	---	---	---	---	---	14.0	27.1	28.9	23.1	24.1
IN.	10.26	---	---	---	---	---	---	16.12	30.28	33.36	26.63	26.86

e Estimated

15295700 TERROR RIVER AT MOUTH NEAR KODIAK

LOCATION.--Lat 57°41'41", long 153°09'42", in SW$^1/_4$ NE$^1/_4$ sec. 5, T. 29 S., R. 24 W. (Kodiak C-4 quad), Kodiak Island Borough, Hydrologic Unit 19020701, on Kodiak Island, in Kodiak National Wildlife Refuge, on right bank, 0.9 mi upstream from mouth, 7.5 mi downstream from Terror Lake Dam, and 29 mi southwest of Kodiak.

DRAINAGE AREA.--30.7 mi^2, 45.7 mi^2 prior to partial diversion of Terror Lake to hydropower plant in February 1985.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1964 to October 1968, October 1981 to current year.

REVISED RECORDS.--WDR AK-84-1: 1982-83. WDR AK-96-1: 1995(M).

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above sea level, from topographic map. Prior to October 1, 1981 at site 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow from 15 mi^2 at headwaters regulated by Terror Lake Dam and some flow diverted from Terror Lake to Kizhuyak River. Regulation for construction began in November 1982. Began filling reservoir April 29, 1984. Diversion to hydropower plant began February 12, 1985. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	154	81	642	95	100	118	550	472	455	211	180
2	207	126	81	277	93	91	122	346	447	417	218	186
3	305	127	81	180	108	87	120	270	448	383	197	195
4	1650	124	83	198	100	98	120	239	418	392	229	190
5	649	123	96	396	91	98	122	244	351	375	266	209
6	360	123	84	212	90	96	124	340	301	354	202	196
7	252	125	91	147	88	94	126	341	290	312	208	188
8	229	121	92	238	88	91	122	374	633	266	213	180
9	220	129	107	330	103	91	121	375	864	227	213	173
10	185	126	102	181	93	91	122	312	541	247	248	179
11	160	121	89	121	103	89	121	250	457	233	229	178
12	169	133	83	118	101	88	130	227	399	230	248	174
13	189	148	94	104	101	90	125	243	354	263	223	182
14	180	133	110	128	89	95	127	268	368	320	211	234
15	177	129	105	98	95	98	131	269	416	355	210	216
16	197	126	111	93	93	146	134	267	502	248	200	173
17	237	208	109	152	99	107	135	335	465	213	196	190
18	191	324	103	138	93	100	153	439	425	250	178	192
19	185	882	101	106	92	94	147	480	373	333	175	178
20	192	795	110	84	90	89	145	527	298	276	218	186
21	179	363	106	88	94	87	135	537	275	300	200	184
22	177	223	105	90	98	83	124	658	255	339	219	246
23	175	159	98	84	102	83	128	595	309	288	236	273
24	180	120	126	79	103	77	130	464	427	215	249	271
25	184	94	151	70	130	80	134	415	780	169	227	201
26	179	80	156	106	177	84	148	368	1400	196	210	195
27	176	87	128	111	128	84	164	460	806	195	226	197
28	178	79	109	109	116	83	464	564	573	212	196	186
29	177	83	192	113	---	83	769	609	474	210	203	192
30	179	77	714	102	---	82	684	523	473	225	199	200
31	182	---	720	96	---	87	---	481	---	223	188	---
TOTAL	8144	5642	4518	4991	2853	2846	5445	12370	14594	8721	6646	5924
MEAN	263	188	146	161	102	91.8	182	399	486	281	214	197
MAX	1650	882	720	642	177	146	769	658	1400	455	266	273
MIN	160	77	81	70	88	77	118	227	255	169	175	173
AC-FT	16150	11190	8960	9900	5660	5650	10800	24540	28950	17300	13180	11750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	273	184	145	123	110	101	173	328	499	363	285	289
MAX	427	354	313	161	168	152	247	454	872	1070	662	707
(WY)	1995	1987	1986	2002	1994	1998	1993	1993	1987	1987	1988	1995
MIN	192	93.8	78.4	81.8	72.6	60.9	115	244	305	228	183	175
(WY)	1998	1995	1988	1989	1989	1986	1986	2000	1990	1989	1994	2000

See Period of Record and Remarks

15295700 TERROR RIVER AT MOUTH NEAR KODIAK—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1986 - 2002#	
ANNUAL TOTAL	85620		82694			
ANNUAL MEAN	235		227		240	
HIGHEST ANNUAL MEAN					369	1987
LOWEST ANNUAL MEAN					193	2000
HIGHEST DAILY MEAN	1650	Oct 4	1650	Oct 4	4610	Sep 20 1995
LOWEST DAILY MEAN	75	Feb 15	70	Jan 25	a26	Dec 11 1996
ANNUAL SEVEN-DAY MINIMUM	81	Nov 28	81	Nov 28	39	Nov 19 1985
MAXIMUM PEAK FLOW			3030	Oct 4	b10000	Sep 19 1995
MAXIMUM PEAK STAGE			4.78	Oct 4	7.67	Sep 19 1995
INSTANTANEOUS LOW FLOW			59	Jan 25	a9.8	Dec 11 1996
ANNUAL RUNOFF (AC-FT)	169800		164000		173900	
10 PERCENT EXCEEDS	478		451		460	
50 PERCENT EXCEEDS	177		180		185	
90 PERCENT EXCEEDS	89		90		85	

PRIOR TO CONSTRUCTION OF TERROR LAKE DAM

SUMMARY STATISTICS, WATER YEARS 1965 - 1983 #

ANNUAL MEAN		293
HIGHEST ANNUAL MEAN	421	1983
LOWEST ANNUAL MEAN	230	1967
HIGHEST DAILY MEAN	2600	Oct 2 1965
LOWEST DAILY MEAN	c19	Feb 23 1967
ANNUAL SEVEN-DAY MINIMUM	20	Feb 23 1967
INSTANTANEOUS PEAK FLOW	3820	Sep 26 1966
INSTANTANEOUS PEAK STAGE	d6.48	Sep 26 1966
INSTANTANEOUS PEAK STAGE	f7.54	Mar 28 1964
ANNUAL RUNOFF (AC-FT)	212200	
ANNUAL RUNOFF (CFSM)	9.54	
ANNUAL RUNOFF (IN)	129.66	
10 PERCENT EXCEEDS	774	
50 PERCENT EXCEEDS	157	
90 PERCENT EXCEEDS	39	

\# See Period of Record and Remarks
a Occurred while dam release valve was closed for repair
b From rating curve extended above 960 ft^3/s on basis of slope-area measurement of peak flow
c Feb. 23 and Mar. 1, 1967
d Site and datum then in use
f Site and datum then in use; from tidal wave

15295700 TERROR RIVER AT MOUTH NEAR KODIAK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968, 1982 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1981 to current year.

INSTRUMENTATION.--Water-temperature recorder since December 10, 1981. Electronic water temperature recorder set for 1-hour recording interval.

REMARKS.--Records represent water temperature at sensor within 0.5°C. Temperature at the sensor was compared with the average for the river by cross section on February 19, April 22, and September 7. No variation was found within the cross sections. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 13.5°C, July 19, 1990 and August 8, 1993; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 12.0°C, July 30-31; minimum, 0.0°C on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	STREAM WIDTH (FT) (00004)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	SAMPLE LOC- ATION, CROSS SECTION (FT FM R BK) (72103)	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)
FEB								
19...	1300	44.5	--	3.0	1.20	93	1.0	-2.3
19...	1302	44.5	--	18.0	1.20	93	1.0	-2.3
19...	1304	44.5	--	28.0	1.20	93	1.0	-2.3
19...	1306	44.5	--	38.0	1.20	93	1.0	-2.3
19...	1308	44.5	--	41.0	1.20	93	1.0	-2.3
APR								
22...	1056	40.0	--	0.0	1.32	122	2.0	2.5
22...	1057	40.0	--	10.0	1.32	122	2.0	2.5
22...	1058	40.0	--	20.0	1.32	122	2.0	2.5
22...	1059	40.0	--	30.0	1.32	122	2.0	2.5
22...	1100	40.0	--	40.0	1.32	122	2.0	2.5
SEP								
07...	1340	48.0	4.00	--	1.53	181	8.0	14.0
07...	1342	48.0	14.0	--	1.53	181	8.0	14.0
07...	1344	48.0	24.0	--	1.53	181	8.0	14.0
07...	1346	48.0	34.0	--	1.53	181	8.0	14.0
07...	1348	48.0	44.0	--	1.53	181	8.0	14.0

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.0	5.0	5.5	4.0	2.5	3.5	1.5	1.0	1.0	1.5	1.0	1.5
2	6.0	4.0	5.0	2.5	1.5	2.0	1.0	0.5	1.0	1.5	1.0	1.0
3	8.5	6.0	7.5	3.0	1.5	2.5	1.5	0.5	1.0	1.0	0.5	0.5
4	8.0	6.0	7.5	3.0	1.5	2.0	0.5	0.0	0.5	2.0	1.0	1.5
5	6.5	5.5	6.0	2.5	1.5	2.0	0.5	0.0	0.5	2.0	1.0	1.0
6	5.5	4.0	5.0	3.0	2.0	2.5	0.5	0.0	0.0	2.0	1.5	1.5
7	5.5	3.5	4.5	3.0	1.0	2.5	0.5	0.0	0.0	2.0	0.5	1.0
8	6.0	4.0	5.0	2.5	1.0	2.0	0.5	0.0	0.5	1.5	0.5	1.5
9	6.0	5.0	5.5	3.0	2.0	2.5	0.5	0.5	0.5	1.5	1.0	1.0
10	5.5	2.5	4.0	3.5	2.5	3.0	1.5	0.5	1.0	1.5	1.0	1.5
11	3.0	2.0	2.5	3.0	2.0	2.5	2.0	1.5	1.5	1.0	0.0	0.5
12	4.0	1.5	2.5	3.0	3.0	3.0	1.5	0.5	1.0	0.5	0.0	0.5
13	5.0	3.0	4.0	3.0	2.5	2.5	0.5	0.0	0.0	1.5	0.5	1.0
14	5.5	4.0	4.5	2.5	2.0	2.5	0.0	0.0	0.0	2.0	1.5	1.5
15	5.5	3.5	4.5	2.5	2.0	2.0	0.0	0.0	0.0	2.0	0.5	1.0
16	4.5	3.0	3.5	2.5	2.0	2.0	0.0	0.0	0.0	2.5	1.0	2.0
17	5.5	4.0	5.0	2.0	1.5	2.0	0.5	0.0	0.5	2.5	1.5	2.0
18	4.5	3.0	4.0	2.5	1.5	2.0	0.5	0.0	0.0	1.5	1.0	1.0
19	3.5	2.5	3.0	2.0	2.0	2.0	0.0	0.0	0.0	1.5	1.0	1.5
20	4.5	3.0	4.0	3.0	2.0	2.5	1.5	0.0	1.0	1.0	0.0	0.5
21	3.0	2.0	2.5	2.5	2.0	2.0	1.5	1.0	1.5	0.5	0.0	0.0
22	3.5	2.0	3.0	2.0	1.0	1.5	1.0	0.0	0.5	0.5	0.0	0.5
23	3.5	2.5	3.0	1.0	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.0
24	3.0	2.0	2.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
25	4.0	2.5	3.0	0.5	0.5	0.5	2.0	0.0	1.5	0.5	0.0	0.0
26	3.0	2.0	2.5	1.0	0.5	0.5	2.0	1.5	2.0	0.5	0.0	0.5
27	3.0	1.5	2.0	1.5	1.0	1.0	1.5	1.0	1.5	0.5	0.5	0.5
28	3.0	2.0	2.5	2.0	1.5	1.5	2.0	1.0	1.5	2.0	0.5	1.5
29	3.0	1.5	2.0	2.0	1.5	1.5	2.0	1.0	1.5	2.0	1.5	1.5
30	3.0	2.0	2.5	1.5	1.5	1.5	1.0	0.5	0.5	1.5	0.5	1.5
31	4.0	2.5	3.5	---	---	---	1.5	0.5	1.0	1.5	0.0	0.5
MONTH	8.5	1.5	3.9	4.0	0.5	1.9	2.0	0.0	0.7	2.5	0.0	1.0

15295700 TERROR RIVER AT MOUTH NEAR KODIAK—Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	1.5	1.5	2.0	1.0	1.5	3.5	0.5	2.0	5.0	1.5	2.5
2	2.0	1.5	1.5	2.0	0.5	1.0	5.0	1.5	2.5	4.5	1.0	2.5
3	2.0	1.0	1.5	2.0	0.0	1.0	4.0	1.0	2.0	6.5	2.5	3.5
4	1.5	1.0	1.5	2.0	0.0	0.5	4.5	1.5	2.5	5.0	1.5	3.5
5	1.5	1.0	1.5	2.0	0.0	0.5	4.5	0.5	2.0	5.5	3.0	4.0
6	2.0	1.0	1.5	2.5	0.0	1.0	4.5	0.5	2.5	5.5	3.0	4.0
7	1.5	0.0	0.5	2.0	0.0	0.5	4.5	1.0	2.5	5.0	2.5	3.5
8	0.5	0.0	0.5	2.5	0.0	1.0	4.5	1.0	2.5	5.5	3.0	4.0
9	1.0	0.5	1.0	3.0	0.5	1.5	5.0	1.5	3.0	5.5	2.5	3.5
10	1.0	0.0	0.5	2.0	0.5	1.0	5.0	1.5	2.5	5.0	2.0	3.5
11	2.5	1.0	1.5	2.5	0.5	1.5	3.5	0.5	2.0	6.0	2.0	3.5
12	1.5	0.0	1.0	2.5	0.0	1.0	4.0	0.5	2.0	6.0	1.5	3.5
13	2.0	0.5	1.5	2.0	0.0	1.0	4.0	0.5	2.0	7.5	2.0	4.5
14	1.5	0.5	1.0	3.5	1.0	2.0	5.0	1.5	3.0	6.5	2.5	4.5
15	1.5	0.0	0.5	4.0	1.5	2.5	5.0	2.0	3.5	5.0	2.5	3.5
16	0.5	0.0	0.5	3.0	1.5	2.0	5.5	1.5	3.0	6.0	3.0	4.5
17	0.5	0.0	0.5	2.5	1.5	2.0	4.5	2.5	3.0	8.5	2.0	4.5
18	1.5	0.5	1.0	3.5	1.5	2.5	5.5	2.5	3.5	8.0	2.5	4.5
19	1.5	0.0	0.5	3.0	1.5	2.0	5.5	2.5	3.5	8.0	2.5	4.5
20	0.5	0.0	0.0	3.0	1.5	2.0	4.5	2.0	3.0	8.0	2.5	4.5
21	1.0	0.0	0.0	3.5	1.5	2.5	5.5	1.0	2.5	7.0	2.5	4.5
22	1.0	0.5	0.5	3.5	1.5	2.5	5.0	0.5	2.5	6.5	3.0	4.5
23	2.5	0.5	1.5	4.0	2.0	2.5	5.5	1.0	3.0	6.0	3.0	4.0
24	2.0	1.0	1.5	3.5	2.0	2.5	6.0	2.0	3.5	7.5	2.0	4.5
25	3.0	1.5	2.0	3.5	2.0	2.5	6.5	1.5	3.5	6.0	2.5	4.0
26	2.5	1.0	1.5	3.5	1.5	2.0	7.0	2.0	4.0	5.5	3.5	4.0
27	2.0	1.0	1.5	3.0	1.0	2.0	6.0	2.0	4.0	5.5	3.5	4.0
28	2.5	1.0	1.5	4.0	1.0	2.0	5.5	2.5	4.0	4.5	3.0	3.5
29	---	---	---	4.0	0.5	2.0	5.5	2.0	3.0	5.0	3.0	4.0
30	---	---	---	4.0	0.5	2.0	5.0	2.0	3.0	5.5	3.0	4.0
31	---	---	---	3.5	0.0	1.5	---	---	---	5.0	3.5	4.0
MONTH	3.0	0.0	1.1	4.0	0.0	1.7	7.0	0.5	2.9	8.5	1.0	3.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4.5	3.0	4.0	10.0	5.5	7.5	11.5	7.0	9.0	9.0	7.0	7.5
2	7.0	3.0	4.5	9.0	6.0	7.0	11.5	7.0	9.0	9.0	6.0	7.0
3	5.5	3.0	4.5	10.5	5.0	7.5	11.5	7.0	9.0	8.5	5.5	7.0
4	7.0	3.0	4.5	9.5	5.5	7.0	10.5	7.0	9.0	9.0	7.0	7.5
5	7.5	2.5	4.5	10.5	5.5	8.0	9.5	8.0	8.5	9.0	7.5	8.0
6	6.5	3.0	5.0	8.5	6.0	7.0	9.5	7.5	8.5	8.5	7.0	7.5
7	7.5	2.5	5.0	9.5	6.0	7.5	10.0	7.5	8.5	8.0	7.0	7.5
8	5.5	3.5	4.0	8.0	6.0	7.0	10.0	7.0	8.5	8.5	6.5	7.0
9	5.5	3.0	4.0	8.5	6.0	7.0	10.5	7.0	8.5	8.5	6.0	7.0
10	6.0	3.5	4.5	8.5	6.0	7.0	9.0	7.5	8.0	8.0	5.0	6.0
11	5.5	3.5	4.5	10.0	5.5	7.5	9.0	6.5	7.5	7.0	5.0	6.0
12	6.0	4.0	5.0	10.5	6.0	8.0	9.0	7.5	8.0	8.0	6.0	7.0
13	7.5	3.5	5.5	8.0	6.5	7.0	10.0	7.0	8.5	8.5	6.5	7.0
14	9.5	3.0	6.0	7.5	6.0	6.5	9.0	7.0	8.0	7.5	6.5	7.0
15	10.0	4.0	6.5	7.5	6.0	7.0	10.0	7.5	8.5	8.5	6.0	7.5
16	9.5	4.0	6.5	10.5	5.0	7.5	11.0	7.0	8.5	8.0	5.5	6.5
17	9.5	3.5	6.0	10.0	6.5	8.0	10.5	7.0	8.5	7.0	5.5	6.5
18	9.5	4.5	6.5	10.5	7.5	8.5	10.5	6.5	8.0	8.0	6.0	6.5
19	6.5	4.0	5.5	9.0	7.0	8.0	8.5	7.0	8.0	7.0	5.5	6.5
20	6.0	4.5	5.5	8.0	6.5	7.0	10.5	7.5	9.0	6.5	4.5	5.5
21	7.0	4.5	5.5	9.5	7.0	8.0	8.5	7.5	8.0	6.5	5.0	6.0
22	8.0	4.0	6.0	10.0	7.0	8.5	9.0	7.5	8.0	7.5	6.5	7.0
23	7.5	5.0	6.0	9.0	7.5	8.0	9.0	7.5	8.0	8.0	7.0	7.5
24	6.0	5.0	5.5	9.5	7.5	8.5	9.0	7.5	8.0	9.0	7.5	8.0
25	5.5	4.5	5.0	9.5	6.5	7.5	9.0	7.0	8.0	8.0	6.5	7.5
26	5.5	4.5	5.0	10.5	7.0	8.0	8.0	6.5	7.0	8.0	6.5	7.5
27	5.5	4.5	5.0	8.5	7.0	7.5	8.5	7.0	7.5	7.0	6.0	6.5
28	7.0	4.5	5.5	10.0	6.5	8.0	9.5	6.0	7.5	7.5	6.0	6.5
29	10.0	4.5	7.0	11.0	6.0	8.5	9.0	6.5	7.5	7.0	6.0	6.5
30	9.0	5.5	7.0	12.0	7.5	9.0	9.0	7.5	8.0	6.5	6.0	6.5
31	---	---	---	12.0	7.0	9.5	9.5	7.5	8.0	---	---	---
MONTH	10.0	2.5	5.3	12.0	5.0	7.7	11.5	6.0	8.2	9.0	4.5	6.9

15297610 RUSSELL CREEK NEAR COLD BAY

LOCATION.--Lat 55°10′40″, long 162°41′15″, (Cold Bay A-3 quad), Aleutians East Borough, Hydrologic Unit 19030101, on left bank, at Russell Creek Fish Hatchery, 2.1 mi upstream from mouth, and 2.6 mi southeast of Cold Bay. Prior to February 27, 1997, at site 0.2 mi downstream.

DRAINAGE AREA.--30.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to December 1986, October 1995 to current year.

REVISED RECORDS.-- WRD AK-97-1: 1996, Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 7.65 ft above sea level. Prior to February 27, 1997, elevation 3.55 ft above sea level at site 0.2 mi downstream (levels by private engineering firm).

REMARKS.--Records good, except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	230	157	e110	e110	e95	123	294	361	264	211	215
2	178	197	166	e120	e120	e95	128	261	330	241	226	197
3	337	193	153	e120	e120	e100	130	253	299	228	502	245
4	213	189	142	e120	e110	e100	125	335	278	238	454	371
5	191	210	e140	e110	e110	e100	118	420	263	239	405	257
6	187	177	e140	e110	e100	e100	117	311	257	228	386	229
7	191	155	e130	e110	e100	e100	115	305	328	209	311	332
8	525	211	e130	e120	e100	e110	113	318	456	198	272	352
9	393	169	e120	e120	e95	e110	111	292	391	191	237	260
10	285	145	e120	e110	e95	e110	105	258	425	194	435	206
11	229	200	e120	e110	e95	e110	102	213	382	191	308	216
12	217	172	e120	e110	e95	116	101	287	323	316	268	383
13	208	164	e120	e120	e100	204	99	909	309	342	242	368
14	195	e160	e110	e120	e100	183	121	542	339	305	324	445
15	174	e160	e110	e130	e95	881	144	372	424	349	361	278
16	704	e150	e110	e130	e95	653	148	313	395	271	266	228
17	499	e150	e110	e120	e90	416	167	283	358	231	221	233
18	302	214	e110	e120	e90	423	132	838	309	220	222	198
19	307	235	e120	e110	e85	273	134	914	277	203	296	175
20	304	169	e120	e110	e85	284	142	1530	247	238	371	162
21	233	184	e110	e100	e80	252	125	901	231	543	392	168
22	251	171	e110	e110	e80	276	115	639	226	375	330	181
23	215	199	e110	e110	e85	263	114	1030	262	771	240	161
24	195	335	e110	e120	e85	225	124	1670	298	341	202	152
25	177	275	e100	e120	e90	224	150	1100	300	337	180	293
26	196	298	e100	e130	e90	188	157	806	258	324	171	308
27	292	319	e100	e130	e90	168	248	584	229	331	168	248
28	191	233	e100	e130	e95	155	602	488	219	280	165	241
29	180	194	e110	e120	---	142	497	480	213	247	252	207
30	277	175	e110	e120	---	142	426	485	248	223	297	198
31	371	---	e110	e110	---	132	---	394	---	212	221	---
TOTAL	8404	6033	3718	3630	2685	6730	5033	17825	9235	8880	8936	7507
MEAN	271.1	201.1	119.9	117.1	95.89	217.1	167.8	575.0	307.8	286.5	288.3	250.2
MAX	704	335	166	130	120	881	602	1670	456	771	502	445
MIN	174	145	100	100	80	95	99	213	213	191	165	152
AC-FT	16670	11970	7370	7200	5330	13350	9980	35360	18320	17610	17720	14890
CFSM	8.77	6.51	3.88	3.79	3.10	7.03	5.43	18.6	9.96	9.27	9.33	8.10
IN.	10.12	7.26	4.48	4.37	3.23	8.10	6.06	21.46	11.12	10.69	10.76	9.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	274.2	296.4	251.1	164.6	147.8	139.1	141.3	239.9	334.3	342.0	314.2	358.7
MAX	516	530	549	318	272	218	261	575	634	528	403	538
(WY)	1986	1986	1984	1982	1982	1996	1998	2002	2000	1982	2000	1998
MIN	172	168	86.8	59.5	71.2	75.8	80.3	133	208	192	256	170
(WY)	1997	2000	2000	2000	2000	1986	1985	2001	1997	1997	1996	2000

\# See Period of Record
e Estimated

15297610 RUSSELL CREEK NEAR COLD BAY—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1982 - 2002#	
ANNUAL TOTAL	80834		88616			
ANNUAL MEAN	221.5		242.8		250.3	
HIGHEST ANNUAL MEAN					302	1982
LOWEST ANNUAL MEAN					206	1983
HIGHEST DAILY MEAN	1060	Jun 23	1670	May 24	4000	Jun 24 1996
LOWEST DAILY MEAN	100	Mar 29	a80	Feb 21	b50	Feb 19 1982
ANNUAL SEVEN-DAY MINIMUM	104	Dec 22	84	Feb 18	51	Feb 18 1982
MAXIMUM PEAK FLOW			2220	May 24	c6000	Oct 22 1981
MAXIMUM PEAK STAGE			28.11	May 24	d11.76	Jun 24 1996
INSTANTANEOUS LOW FLOW					f49	Mar 13 1983
ANNUAL RUNOFF (AC-FT)	160300		175800		181400	
ANNUAL RUNOFF (CFSM)	7.17		7.86		8.10	
ANNUAL RUNOFF (INCHES)	97.31		106.68		110.07	
10 PERCENT EXCEEDS	358		399		440	
50 PERCENT EXCEEDS	191		199		202	
90 PERCENT EXCEEDS	120		101		95	

\# See Period of Record
a Feb. 21-22
b Feb. 19-23, 1982
c From rating curve extended above 610 ft^3/s on basis of estimate by slope-area measurement of 6,000 ft^3/s and gage height of 11.19 ft
d Site and datum then in use; from flood marks
f Mar. 13-14, 1983

15297610 RUSSELL CREEK NEAR COLD BAY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982-83, 1996 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1996 to current year.

INSTRUMENTATION.--Electronic water-temperature recorder set for 1-hour recording interval.

REMARKS.--Records represent water-temperature at the sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross section on June 19. No variation was found within the cross section. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 15.5°C, August 13-14, 2001, July 31 and August 1, 2002; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 15.5°C, July 31 and August 1; minimum 0.0°C on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)
JUN							
19...	1845	71.6	4.00	26.05	255	10.5	18.0
19...	1846	71.6	24.0	26.05	255	10.5	18.0
19...	1847	71.6	44.0	26.05	255	10.5	18.0
19...	1848	71.6	64.0	26.05	255	10.5	18.0
19...	1849	71.6	69.0	26.05	255	10.5	18.0

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.0	4.0	5.5	2.5	0.0	1.5	1.0	0.0	0.5	---	0.0	---
2	7.0	3.5	5.5	0.0	0.0	0.0	2.0	1.0	1.5	---	0.0	---
3	9.0	6.0	7.0	0.0	0.0	0.0	2.0	0.5	1.5	---	0.0	---
4	7.5	4.5	6.0	0.0	0.0	0.0	2.0	0.5	1.5	---	0.0	---
5	8.0	3.0	5.0	1.0	0.0	0.5	1.0	0.0	0.0	---	0.0	---
6	7.0	3.5	5.0	2.5	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
7	7.0	3.0	5.0	2.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
8	6.5	4.5	5.5	2.5	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
9	5.5	3.0	4.5	3.0	1.5	2.0	2.0	0.0	1.0	0.0	0.0	0.0
10	4.5	2.0	3.0	2.5	0.5	1.5	1.5	0.0	1.0	0.0	0.0	0.0
11	4.5	1.0	2.5	2.0	1.0	1.5	0.5	0.0	0.5	0.0	0.0	0.0
12	6.0	2.5	4.0	2.5	0.0	1.5	0.0	0.0	0.0	0.5	0.0	---
13	6.5	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5
14	4.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
15	5.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	8.0	4.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	6.5	3.5	5.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	4.5	3.0	3.5	2.5	0.5	1.5	0.0	0.0	0.0	1.0	0.0	0.5
19	5.5	3.5	4.5	3.0	2.0	2.5	0.0	0.0	0.0	1.0	0.0	0.5
20	6.0	3.5	4.5	3.0	1.0	2.0	0.0	0.0	0.0	0.5	0.0	0.0
21	3.5	2.0	2.5	3.0	1.0	2.0	0.0	0.0	0.0	0.5	0.5	0.5
22	4.0	1.0	2.5	3.5	1.0	2.5	0.0	0.0	0.0	2.0	0.0	0.5
23	4.0	1.0	2.0	4.0	0.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
24	3.0	0.5	1.5	4.0	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
25	2.0	0.5	1.0	4.0	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
26	3.5	1.0	2.0	3.5	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
27	3.5	1.5	2.5	3.5	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
28	2.0	1.0	1.5	3.0	1.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
29	1.5	0.0	0.5	2.5	0.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
30	3.5	0.5	1.5	2.5	1.0	2.0	---	0.0	---	0.0	0.0	0.0
31	3.5	1.5	2.5	---	---	---	---	0.0	---	0.0	0.0	0.0
MONTH	9.0	0.0	3.6	4.0	0.0	1.5	---	0.0	---	---	0.0	---

15297610 RUSSELL CREEK NEAR COLD BAY—Continued

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.5	0.0	0.0	0.0	0.0	0.0	4.5	0.5	2.0	8.5	1.5	4.5
2	0.5	0.0	0.5	0.0	0.0	0.0	5.5	1.5	3.0	8.0	2.0	4.5
3	1.0	0.0	0.5	0.0	0.0	0.0	8.0	1.0	3.5	9.0	2.5	5.5
4	2.0	0.0	0.5	0.0	0.0	0.0	6.0	0.5	3.0	5.5	3.5	4.5
5	1.0	0.0	0.5	0.0	0.0	0.0	8.0	0.0	3.0	6.5	3.0	4.0
6	0.5	0.0	0.0	0.0	0.0	0.0	8.0	0.0	3.5	8.0	1.5	4.5
7	0.5	0.0	0.0	0.0	0.0	0.0	8.5	0.0	3.5	8.5	3.5	5.5
8	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	3.5	7.0	3.0	4.5
9	0.0	0.0	0.0	1.0	0.0	0.5	5.0	2.0	3.0	5.5	2.5	4.0
10	0.0	0.0	0.0	2.5	0.0	0.5	6.5	1.0	3.0	8.0	2.5	4.5
11	0.0	0.0	0.0	3.0	0.0	0.5	2.5	0.0	1.0	8.0	2.0	4.5
12	0.0	0.0	0.0	3.0	0.5	1.5	2.0	0.0	0.5	6.5	2.5	4.0
13	0.0	0.0	0.0	1.5	0.0	0.5	6.0	1.0	3.0	5.5	3.5	4.0
14	0.0	0.0	0.0	2.5	0.5	1.0	6.5	2.0	3.5	5.0	3.0	3.5
15	0.0	0.0	0.0	0.5	0.0	0.5	7.5	1.5	3.5	10.5	2.0	5.5
16	0.0	0.0	0.0	2.5	0.0	1.0	5.0	2.0	3.5	11.0	2.5	6.0
17	0.0	0.0	0.0	2.5	0.5	1.5	3.0	1.5	2.5	11.5	3.0	6.5
18	0.0	0.0	0.0	4.0	0.5	1.5	7.0	0.5	3.0	5.5	4.0	4.5
19	0.0	0.0	0.0	3.0	0.0	1.5	5.5	1.5	3.0	5.0	3.5	4.0
20	0.0	0.0	0.0	3.5	1.0	2.0	5.5	2.5	3.5	6.0	3.5	4.5
21	0.0	0.0	0.0	3.5	1.0	2.0	6.0	1.0	3.0	9.5	2.5	5.5
22	0.0	0.0	0.0	3.5	1.0	2.0	7.5	2.0	4.0	8.0	4.0	5.5
23	0.0	0.0	0.0	3.5	1.0	2.0	5.5	2.0	3.5	5.0	3.5	4.0
24	0.0	0.0	0.0	2.5	0.5	1.5	5.5	2.5	3.5	5.0	3.5	4.0
25	0.0	0.0	0.0	5.5	0.5	2.5	8.5	2.5	5.0	5.5	3.5	4.0
26	0.0	0.0	0.0	6.0	1.0	2.5	10.0	2.5	5.5	9.0	3.0	5.5
27	0.0	0.0	0.0	4.5	0.5	2.0	8.0	3.0	4.5	7.0	4.0	5.0
28	0.0	0.0	0.0	3.5	0.5	2.0	6.0	3.0	4.0	9.0	4.5	6.5
29	---	---	---	2.0	0.0	1.0	7.5	3.0	4.5	9.0	4.0	6.5
30	---	---	---	5.0	0.0	1.5	7.0	2.5	4.5	9.0	3.5	6.0
31	---	---	---	4.0	0.0	1.5	---	---	---	8.5	4.0	6.0
MONTH	2.0	0.0	0.0	6.0	0.0	1.1	10.0	0.0	3.3	11.5	1.5	4.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.5	4.0	5.5	10.0	5.0	7.5	15.5	6.5	10.0	10.5	4.5	7.5
2	9.5	4.5	6.5	9.0	5.0	7.0	15.0	5.5	9.5	12.5	5.5	8.0
3	8.0	4.5	6.0	14.0	5.0	8.5	8.5	7.0	8.0	11.5	7.0	9.0
4	12.0	4.0	7.0	10.5	5.5	8.0	11.0	6.5	8.0	10.5	8.5	9.5
5	12.5	4.0	7.5	9.5	5.0	7.0	8.5	6.5	7.5	9.0	7.0	8.0
6	12.5	5.0	7.5	10.5	5.0	7.0	9.0	6.0	7.5	8.5	6.5	7.5
7	7.5	5.0	6.0	11.0	5.5	8.0	11.0	5.5	8.0	9.0	6.0	7.5
8	7.0	4.5	5.5	9.0	5.5	7.0	14.0	5.0	9.0	8.5	6.0	7.0
9	8.5	4.5	6.0	12.0	6.0	8.5	8.5	5.5	7.0	9.5	5.0	6.5
10	7.0	4.5	5.5	11.5	5.0	8.0	12.5	7.0	9.0	10.0	5.5	7.0
11	10.5	4.0	6.0	14.0	4.5	8.5	13.0	6.0	8.5	8.5	4.5	6.5
12	12.5	3.5	7.0	10.5	7.0	8.5	11.5	6.0	8.0	8.0	7.0	7.5
13	8.5	4.0	6.5	8.5	6.0	7.0	12.0	5.5	8.5	8.5	6.0	7.0
14	7.0	4.5	6.0	8.0	6.0	7.0	13.0	7.5	9.5	8.0	5.0	6.5
15	9.0	4.5	6.0	10.0	5.5	7.0	10.0	6.0	8.0	8.0	4.0	5.5
16	13.0	4.0	8.0	8.5	5.0	6.5	14.0	6.0	9.5	9.0	4.5	6.5
17	8.0	4.5	6.0	11.0	6.0	8.0	14.0	5.5	9.0	9.5	5.0	6.5
18	11.0	4.0	7.0	9.0	6.0	7.5	11.0	6.0	8.5	10.0	5.5	7.0
19	10.5	4.5	7.0	12.0	5.5	8.5	13.0	8.0	10.0	9.0	5.0	6.5
20	9.0	5.0	7.0	9.0	7.0	8.0	10.0	7.5	8.5	8.0	4.5	5.5
21	9.5	5.0	6.5	9.5	6.0	7.5	8.0	7.0	7.5	6.0	4.0	5.0
22	12.0	5.5	7.5	8.5	5.5	6.5	10.0	6.0	7.5	8.5	6.0	7.5
23	11.0	5.0	7.5	11.0	4.5	7.5	12.5	6.0	8.0	11.5	6.0	8.0
24	8.0	5.5	6.5	9.5	5.5	7.0	11.0	5.5	8.0	9.5	5.5	7.5
25	12.5	5.0	7.5	11.0	5.5	7.5	11.5	5.0	8.0	8.5	6.5	7.5
26	9.5	5.0	7.0	10.0	6.0	7.5	13.5	5.0	9.0	9.0	6.0	7.0
27	10.0	4.5	7.0	9.5	5.5	7.0	14.0	6.5	9.5	8.0	5.0	6.0
28	9.0	5.0	7.0	11.0	5.5	7.5	10.5	5.5	7.5	8.0	6.0	6.5
29	14.5	5.0	9.0	10.0	5.5	7.5	10.0	7.0	8.0	8.5	5.5	6.5
30	11.5	6.0	8.0	13.0	5.5	8.5	10.5	7.0	8.5	8.5	5.0	6.5
31	---	---	---	15.5	6.0	10.0	9.5	5.5	7.5	---	---	---
MONTH	14.5	3.5	6.8	15.5	4.5	7.6	15.5	5.0	8.4	12.5	4.0	7.0

15300300 ILIAMNA RIVER NEAR PEDRO BAY

LOCATION.--Lat 59°45'31", long 153°50'41", in NE1/4 SE1/4 sec. 10, T. 5 S., R. 27 W.(Iliamna D-3 quad), Lake and Peninsula Borough, Hydrologic Unit 19030206, on left bank 100 ft downstream from bridge on road between Pile Bay and Williamsport, 9.2 mi east of Pedro Bay, and 37 mi east of Iliamna.

DRAINAGE AREA.--128 mi^2.

PERIOD OF RECORD.--May 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 80 ft above sea level, from topographic map.

REMARKS.--Records are good except for estimated daily discharges which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	805	e340	e230	1650	e140	e90	e60	1020	2240	2210	882	592
2	862	e320	e220	1490	e140	e90	e60	807	2000	1880	831	559
3	799	e320	e220	1110	e130	e85	e60	662	2230	1920	809	504
4	2790	e300	e220	968	e130	e85	e60	575	2480	2010	803	463
5	3200	e300	e210	857	e130	e85	e60	531	2380	1990	823	505
6	2070	e290	e210	734	e130	e85	e60	588	2510	1790	869	687
7	1340	e290	e210	487	e130	e80	e60	647	2470	1580	780	839
8	1050	e280	e220	464	e130	e80	e60	645	2470	1420	983	688
9	1070	e280	e220	e440	e130	e80	e55	651	4820	1230	932	641
10	1010	e280	e230	e400	e130	e80	e55	683	4420	1130	867	564
11	821	e270	e230	e360	e120	e75	e55	688	2830	1210	1300	547
12	713	e270	e220	e320	e120	e75	e55	705	2310	1420	1100	1010
13	628	e260	e220	e300	e120	e75	e55	754	2170	1410	1060	2860
14	602	263	e220	e250	e120	e75	e55	845	2190	1340	903	3390
15	575	264	e210	e220	e110	e70	e55	1020	2550	1320	794	1930
16	513	310	e210	e200	e110	e70	e55	1120	2910	1150	742	1220
17	497	338	e200	e190	e110	e70	e55	1260	3000	1110	742	1100
18	519	482	e200	e180	e110	e70	e55	1530	2980	1360	730	1080
19	449	498	e200	e180	e110	e70	e50	1970	2720	1340	694	860
20	411	424	e190	e180	e100	e70	e50	2330	2140	1460	732	717
21	397	405	e190	e170	e100	e65	e50	2550	1800	1370	913	622
22	e380	317	e180	e170	e100	e65	e60	2680	1810	1490	861	557
23	e380	272	e180	e170	e100	e65	e75	3380	2010	1570	929	1900
24	e380	254	e170	e160	e100	e65	e90	2840	1920	1850	740	4710
25	e380	e250	496	e160	e95	e65	e120	2750	2080	1520	666	3370
26	e360	e250	1130	e160	e95	e65	182	2880	1900	1480	602	2000
27	e360	e250	1990	e150	e95	e65	223	3060	2070	1400	560	1710
28	e360	e240	1490	e150	e95	e60	296	2810	1910	1090	527	2760
29	e360	e240	1270	e150	---	e60	593	2390	1740	984	508	2530
30	e340	e230	1140	e140	---	e60	938	2630	2010	890	546	1750
31	e340	---	1210	e140	---	e60	---	2420	---	900	552	---
TOTAL	24761	9087	13736	12700	3230	2255	3757	49421	73070	44824	24780	42665
MEAN	798.7	302.9	443.1	409.7	115.4	72.74	125.2	1594	2436	1446	799.4	1422
MAX	3200	498	1990	1650	140	90	938	3380	4820	2210	1300	4710
MIN	340	230	170	140	95	60	50	531	1740	890	508	463
AC-FT	49110	18020	27250	25190	6410	4470	7450	98030	144900	88910	49150	84630
CFSM	6.24	2.37	3.46	3.20	0.90	0.57	0.98	12.5	19.0	11.3	6.24	11.1
IN.	7.20	2.64	3.99	3.69	0.94	0.66	1.09	14.36	21.24	13.03	7.20	12.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	622.8	406.4	246.9	208.3	125.9	157.6	252.3	1087	2540	1699	1177	1449
MAX	861	748	443	410	253	407	500	1594	3790	2931	1631	2178
(WY)	2000	1999	2002	2002	2001	1998	1998	2002	1998	2001	1999	1999
MIN	289	161	84.5	75.2	61.6	60.6	87.8	752	1716	788	692	627
(WY)	1997	1997	1997	1998	1998	1999	1999	2001	1996	1997	1997	1996

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1996 - 2002#	
ANNUAL TOTAL	366821		304286			
ANNUAL MEAN	1005		833.7		867.6	
HIGHEST ANNUAL MEAN					1083	1998
LOWEST ANNUAL MEAN					622	1997
HIGHEST DAILY MEAN	7460	Jul 19	4820	Jun 9	12300	Jun 8 1998
LOWEST DAILY MEAN	a150	Apr 12	b50	Apr 19	c38	Jan 5 1997
ANNUAL SEVEN-DAY MINIMUM	153	Apr 10	53	Apr 15	40	Jan 2 1997
MAXIMUM PEAK FLOW			6260	Jun 9	14800	Jun 8 1998
MAXIMUM PEAK STAGE			65.21	Jun 9	71.82	Jun 8 1998
ANNUAL RUNOFF (AC-FT)	727600		603600		628600	
ANNUAL RUNOFF (CFSM)	7.85		6.51		6.78	
ANNUAL RUNOFF (INCHES)	106.61		88.43		92.10	
10 PERCENT EXCEEDS	2680		2220		2220	
50 PERCENT EXCEEDS	411		504		460	
90 PERCENT EXCEEDS	180		70		80	

\# See Period of Record; partial year used in monthly statistics
a From Apr. 12-16
b From Apr. 19-21
c From Jan. 5-6, 1997
e Estimated

15302000 NUYAKUK RIVER NEAR DILLINGHAM

LOCATION.--Lat 59°56′08″, long 158°11′16″, in NE$\frac{1}{4}$ NE$\frac{1}{4}$ sec. 10, T.3 S., R.52 W. (Dillingham D-6 quad), Hydrologic Unit 19030301, on the left bank 350 ft downstream from outlet of Tikchik Lake, about 0.6 mi upstream from unnamed tributary entering from left bank and 62 mi north of Dillingham.

DRAINAGE AREA.--1,490 mi^2, approximately.

PERIOD OF RECORD.--May 1953 to September 1996 and July to September, 2002.

REVISED RECORDS.--WRD-Alaska 1972; 1971.

GAGE.--Water-stage recorder. Elevation of gage is 325 ft above sea level from topographic map. Prior to Oct.8, 1983, at site 650 ft downstream at different datum, but datum was 2.00 ft higher from May 1953 to Oct. 1. 1957.

REMARKS.--Records good, except for estimated daily discharges, which are poor. GOES satellite telemetry at station. Discharge affected by storage in Tikchik Lake, Nuyakuk Lake, Lake Chauekuktuli, and other smaller lakes covering over 170 mi^2 of the basin.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge not determined, maximum daily mean discharge during the period July through September, 18,200 ft^3/s, July 1; minimum not determined, occurs during winter.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	e18200	9050	5650
2	---	---	---	---	---	---	---	---	---	e17700	8860	5540
3	---	---	---	---	---	---	---	---	---	e17200	8660	5430
4	---	---	---	---	---	---	---	---	---	e16800	8450	5280
5	---	---	---	---	---	---	---	---	---	e16300	8230	5250
6	---	---	---	---	---	---	---	---	---	e15800	8100	5250
7	---	---	---	---	---	---	---	---	---	e15400	7980	5200
8	---	---	---	---	---	---	---	---	---	e15000	7830	5160
9	---	---	---	---	---	---	---	---	---	e14600	7630	5070
10	---	---	---	---	---	---	---	---	---	14200	7420	4960
11	---	---	---	---	---	---	---	---	---	13700	7260	4820
12	---	---	---	---	---	---	---	---	---	13200	7270	4630
13	---	---	---	---	---	---	---	---	---	12800	7160	4730
14	---	---	---	---	---	---	---	---	---	12500	7000	4840
15	---	---	---	---	---	---	---	---	---	12200	6860	4940
16	---	---	---	---	---	---	---	---	---	11900	6700	4900
17	---	---	---	---	---	---	---	---	---	11700	6540	4900
18	---	---	---	---	---	---	---	---	---	11400	6400	4830
19	---	---	---	---	---	---	---	---	---	11100	6290	4760
20	---	---	---	---	---	---	---	---	---	10800	6320	4690
21	---	---	---	---	---	---	---	---	---	10600	6290	4600
22	---	---	---	---	---	---	---	---	---	10500	6260	4500
23	---	---	---	---	---	---	---	---	---	10300	6250	4510
24	---	---	---	---	---	---	---	---	---	10300	6170	4730
25	---	---	---	---	---	---	---	---	---	10200	6100	4810
26	---	---	---	---	---	---	---	---	---	10000	6040	4990
27	---	---	---	---	---	---	---	---	---	10000	5970	5360
28	---	---	---	---	---	---	---	---	---	9920	5900	5720
29	---	---	---	---	---	---	---	---	---	9760	5780	5890
30	---	---	---	---	---	---	---	---	---	9530	5720	6010
31	---	---	---	---	---	---	---	---	---	9300	5690	---
TOTAL	---	---	---	---	---	---	---	---	---	392910	216180	151950
MEAN	---	---	---	---	---	---	---	---	---	12670	6974	5065
MAX	---	---	---	---	---	---	---	---	---	18200	9050	6010
MIN	---	---	---	---	---	---	---	---	---	9300	5690	4500
AC-FT	---	---	---	---	---	---	---	---	---	779300	428800	301400
CFSM	---	---	---	---	---	---	---	---	---	8.51	4.68	3.40
IN.	---	---	---	---	---	---	---	---	---	9.81	5.40	3.79

e Estimated

15302000 NUYAKUK RIVER NEAR DILLINGHAM—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)#

MEAN	7761	5015	3209	2454	2077	1826	1784	4491	15360	14010	8999	8180
MAX	13350	9192	6500	4005	3200	3041	2692	11320	23290	26220	24190	17070
(WY)	1992	1980	1984	1984	1963	1963	1993	1978	1969	1977	1977	1989
MIN	3816	2570	1848	1397	1252	990	800	1719	10360	6794	3855	4099
(WY)	1969	1969	1964	1964	1964	1976	1960	1964	1954	1954	1957	1984

SUMMARY STATISTICS	WATER YEARS 1953 - 2002#	
ANNUAL MEAN	6301	
HIGHEST ANNUAL MEAN	9470	1977
LOWEST ANNUAL MEAN	4236	1954
HIGHEST DAILY MEAN	32100	Jul 2 1977
LOWEST DAILY MEAN	a770	Apr 16 1960
ANNUAL SEVEN-DAY MINIMUM	770	Apr 16 1960
MAXIMUM PEAK FLOW	32200	Jul 2 1977
MAXIMUM PEAK STAGE	b10.49	Jul 2 1977
INSTANTANEOUS LOW FLOW	770	Apr 16 1960
ANNUAL RUNOFF (AC-FT)	4565000	
ANNUAL RUNOFF (CFSM)	4.23	
ANNUAL RUNOFF (INCHES)	57.46	
10 PERCENT EXCEEDS	14300	
50 PERCENT EXCEEDS	4300	
90 PERCENT EXCEEDS	1700	

See Period of Record
a Apr.16-30, 1960
b Site and datum then in use

15303700 TATALINA RIVER NEAR TAKOTNA

LOCATION.--Lat 62°53′06″, long 155°56′22″, in NW$^1/_4$ NE$^1/_4$ sec. 12, T.32 N., R.36 W.(McGrath D-6 quad), Hydrologic Unit 19030405, at downstream side of bridge on right bank, 1.2 mi southeast of Tatalina Airstrip, and 8.1 mi southeast of Takotna.

DRAINAGE AREA.--76.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1987 to current year (no winter record), except May only in 1989, and annual maximum in water year 1991.

GAGE.--Water-stage recorder, non-recording gage, and crest-stage gage. Elevation of gage is 450 ft above sea level, from topographic map. Prior to May 9, 1990 at site 20 ft downstream at same datum.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Precipitation gage and air temperature recorder at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft^3/s, July 8, 1998, gage-height 10.97 ft; maximum gage height 11.46 ft, 1996, date and time unknown, backwater from ice, discharge not determined; minimum discharge not determined, occurs during winter.

EXTREMES FOR CURRENT PERIOD.-- October 2001 and June to September 2002: maximum discharge during period, 247 ft^3/s, September 13, gage height 5.73 ft; maximum observed gage height 10.43 ft, backwater from ice, discharge not determined, date unknown, occurred during winter; minimum discharge not determined, occurs during winter.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	---	---	---	---	---	---	---	e90	37	27	34
2	82	---	---	---	---	---	---	---	e88	36	25	30
3	79	---	---	---	---	---	---	---	86	36	24	27
4	99	---	---	---	---	---	---	---	86	39	24	28
5	102	---	---	---	---	---	---	---	86	36	24	61
6	92	---	---	---	---	---	---	---	103	e32	23	86
7	80	---	---	---	---	---	---	---	90	e31	22	77
8	74	---	---	---	---	---	---	---	86	e30	22	62
9	73	---	---	---	---	---	---	---	75	e30	23	52
10	e71	---	---	---	---	---	---	---	69	e29	24	45
11	e68	---	---	---	---	---	---	---	68	e29	24	49
12	e66	---	---	---	---	---	---	---	63	e28	22	137
13	e63	---	---	---	---	---	---	---	58	e28	22	190
14	e60	---	---	---	---	---	---	---	55	e30	21	126
15	e57	---	---	---	---	---	---	---	53	e29	20	103
16	e53	---	---	---	---	---	---	---	51	e29	20	e90
17	e50	---	---	---	---	---	---	---	49	e28	20	e80
18	e48	---	---	---	---	---	---	---	48	e28	21	e73
19	e46	---	---	---	---	---	---	---	46	e29	22	e67
20	e44	---	---	---	---	---	---	---	45	e30	21	e60
21	e42	---	---	---	---	---	---	---	44	40	28	e55
22	e40	---	---	---	---	---	---	---	41	34	51	e50
23	e39	---	---	---	---	---	---	---	40	33	42	e46
24	e38	---	---	---	---	---	---	---	41	31	42	e43
25	e36	---	---	---	---	---	---	---	44	35	49	e40
26	e35	---	---	---	---	---	---	---	53	34	37	e37
27	e34	---	---	---	---	---	---	---	55	37	33	e42
28	e33	---	---	---	---	---	---	---	46	40	30	e46
29	e32	---	---	---	---	---	---	---	42	39	29	e51
30	e31	---	---	---	---	---	---	---	40	32	28	e60
31	e30	---	---	---	---	---	---	---	---	29	28	---
TOTAL	1760	---	---	---	---	---	---	---	1841	1008	848	1947
MEAN	56.77	---	---	---	---	---	---	---	61.37	32.52	27.35	64.90
MAX	102	---	---	---	---	---	---	---	103	40	51	190
MIN	30	---	---	---	---	---	---	---	40	28	20	27
AC-FT	3490	---	---	---	---	---	---	---	3650	2000	1680	3860
CFSM	0.74	---	---	---	---	---	---	---	0.80	0.42	0.36	0.84
IN.	0.85	---	---	---	---	---	---	---	0.89	0.49	0.41	0.94

e Estimated

15303700 TATALINA RIVER NEAR TAKOTNA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1992 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1992 to current year (seasonal).

INSTRUMENTATION.--Electronic water-temperature recorder set for 1-hour recording interval.

REMARKS.--No record June 14 to July 23 due to probe out of water and September 17-30 due to recorder. Records represent water temperature at the sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross sections on June 3. No variation was found between mean stream temperature and sensor temperature.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE.--Maximum, 16.5°C, July 30 to August 2, and 4, 1997; minimum, 0.0°C, several days in October, May, and September most water years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 14.5°C, August 5, but may have been higher during period of missing record; minimum, 0.0°C, several days in May.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM R BK) (72103)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)
JUN									
03...	1600	30.5	3.0	4.15	86	4.0	12.0	10	8010
03...	1601	30.5	9.0	4.15	86	4.0	12.0	10	8010
03...	1603	30.5	15.0	4.15	86	4.0	12.0	10	8010
03...	1605	30.5	21.0	4.15	86	4.0	12.0	10	8010
03...	1607	30.5	27.0	4.15	86	4.0	12.0	10	8010

TEMPERATURE, WATER (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1.5	0.5	1.0	---	---	---	---	---	---	---	---	---
2	2.5	1.5	2.0	---	---	---	---	---	---	---	---	---
3	2.0	1.5	1.5	---	---	---	---	---	---	---	---	---
4	3.5	1.5	2.5	---	---	---	---	---	---	---	---	---
5	4.0	3.5	3.5	---	---	---	---	---	---	---	---	---
6	3.5	3.0	3.5	---	---	---	---	---	---	---	---	---
7	3.0	1.0	2.0	---	---	---	---	---	---	---	---	---
8	1.0	1.0	1.0	---	---	---	---	---	---	---	---	---
9	---	0.5	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

15303700 TATALINA RIVER NEAR TAKOTNA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
20	---	---	---	---	---	---	---	---	---	0.5	0.0	0.0
21	---	---	---	---	---	---	---	---	---	0.5	0.0	0.0
22	---	---	---	---	---	---	---	---	---	0.5	0.0	0.0
23	---	---	---	---	---	---	---	---	---	1.0	0.0	0.5
24	---	---	---	---	---	---	---	---	---	1.5	0.0	0.5
25	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
26	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
27	---	---	---	---	---	---	---	---	---	1.5	0.5	1.0
28	---	---	---	---	---	---	---	---	---	3.0	0.5	1.5
29	---	---	---	---	---	---	---	---	---	3.5	0.5	2.0
30	---	---	---	---	---	---	---	---	---	4.0	1.5	3.0
31	---	---	---	---	---	---	---	---	---	3.5	3.0	3.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4.0	2.0	3.0	---	---	---	13.5	10.0	11.5	8.0	6.5	7.5
2	3.5	3.0	3.5	---	---	---	13.5	10.0	12.0	7.0	6.0	6.5
3	5.0	2.5	3.5	---	---	---	13.5	10.5	12.0	7.5	6.0	6.5
4	5.0	3.5	4.0	---	---	---	13.5	10.5	12.0	7.5	7.0	7.5
5	5.0	3.5	4.0	---	---	---	14.5	11.0	12.5	8.0	7.5	8.0
6	4.5	3.5	4.0	---	---	---	14.0	12.5	13.0	8.0	7.5	7.5
7	6.5	4.5	5.0	---	---	---	12.5	10.0	11.5	7.5	7.0	7.0
8	5.5	4.5	5.0	---	---	---	11.0	9.0	9.5	7.0	5.5	6.5
9	6.0	4.5	5.0	---	---	---	9.5	8.5	9.0	5.5	4.5	5.0
10	6.5	5.0	5.5	---	---	---	9.5	7.0	8.5	4.5	3.5	4.0
11	8.0	5.5	6.5	---	---	---	10.0	7.5	9.0	5.5	4.0	4.5
12	8.5	5.5	7.0	---	---	---	10.5	8.5	9.5	5.5	5.0	5.5
13		6.5	---	---	---	---	10.0	7.5	9.0	5.5	5.0	5.5
14	---	---	---	---	---	---	9.5	6.5	8.0	6.0	5.5	5.5
15	---	---	---	---	---	---	9.5	6.5	8.0	5.5	5.0	5.5
16	---	---	---	---	---	---	9.0	8.5	8.5	---	4.5	---
17	---	---	---	---	---	---	9.5	8.5	9.0	---	---	---
18	---	---	---	---	---	---	9.0	8.5	8.5	---	---	---
19	---	---	---	---	---	---	9.5	6.5	8.0	---	---	---
20	---	---	---	---	---	---	8.0	6.0	7.0	---	---	---
21	---	---	---	---	---	---	7.5	6.5	7.0	---	---	---
22	---	---	---	---	---	---	7.0	6.5	7.0	---	---	---
23	---	---	---	---	---	---	7.5	6.5	7.0	---	---	---
24	---	---	---	13.0	12.0	12.5	9.0	7.0	8.0	---	---	---
25	---	---	---	12.5	11.0	12.0	8.0	6.5	7.5	---	---	---
26	---	---	---	11.5	10.5	11.0	8.0	6.0	7.0	---	---	---
27	---	---	---	10.5	9.5	10.0	7.5	5.5	6.5	---	---	---
28	---	---	---	10.5	9.0	10.0	7.0	5.5	6.5	---	---	---
29	---	---	---	11.0	8.5	10.0	8.0	5.5	6.5	---	---	---
30	---	---	---	12.5	9.0	10.5	7.5	6.0	7.0	---	---	---
31	---	---	---	13.0	9.5	11.0	8.5	7.0	7.5	---	---	---
MONTH	---	---	---	---	---	---	14.5	5.5	8.8	---	---	---

15303900 KUSKOKWIM RIVER AT LISKYS CROSSING NEAR STONY RIVER

LOCATION.--Lat 62°03'07", long 156°12'38", in SW$^1/_4$ NE$^1/_4$ SE$^1/_4$ sec. 27, T. 23 N., R. 38 W. (Iditarod A-1 quad), Hydrologic Unit 19030405, on the downstream point of the first channel island located 0.25 mi above Lisky's house site (historic, house since destroyed), 22 mi northeast of the village of Stony River.

DRAINAGE AREA.--15,600 mi^2, approximately.

PERIOD OF RECORD.--May 1996 to current year (no winter record).

GAGE.--Water-stage recorder. Elevation of gage is 250 ft above sea level from topographic map.

REMARKS.-- GOES satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed 33.80 ft, July 11, 1998, but may have been higher during a period of missing record. Minimum gage height observed 22.94 ft, October 11, 1997, but may have been lower during a period of missing record.

EXTREMES FOR CURRENT PERIOD.--October 1-14, 2001, June 5-10, and June 19 to September 30, 2002; Maximum gage height 28.20 ft, September 16 and 17; minimum gage height 25.20 ft, October 3.

GAGE HEIGHT FROM DCP, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.33	---	---	---	---	---	---	---	---	26.44	26.56	25.91
2	25.28	---	---	---	---	---	---	---	---	26.14	26.34	25.73
3	25.24	---	---	---	---	---	---	---	---	25.99	26.14	25.60
4	25.31	---	---	---	---	---	---	---	---	26.01	26.03	25.54
5	25.37	---	---	---	---	---	---	---	27.69	26.15	25.95	25.62
6	25.42	---	---	---	---	---	---	---	27.74	26.40	25.92	25.64
7	25.51	---	---	---	---	---	---	---	27.66	26.60	25.91	25.62
8	25.45	---	---	---	---	---	---	---	27.53	26.94	26.00	25.73
9	25.52	---	---	---	---	---	---	---	27.55	26.91	26.19	26.25
10	25.62	---	---	---	---	---	---	---	27.79	26.70	26.66	26.73
11	25.66	---	---	---	---	---	---	---	---	26.63	27.66	26.91
12	25.52	---	---	---	---	---	---	---	---	26.61	28.03	26.94
13	25.38	---	---	---	---	---	---	---	---	26.58	27.60	26.94
14	25.33	---	---	---	---	---	---	---	---	26.54	27.00	27.10
15	---	---	---	---	---	---	---	---	---	26.42	26.55	27.63
16	---	---	---	---	---	---	---	---	---	26.38	26.31	28.13
17	---	---	---	---	---	---	---	---	---	26.42	26.20	28.13
18	---	---	---	---	---	---	---	---	---	26.28	25.98	27.82
19	---	---	---	---	---	---	---	---	26.01	26.12	25.74	27.43
20	---	---	---	---	---	---	---	---	26.15	26.01	25.59	27.05
21	---	---	---	---	---	---	---	---	26.45	26.04	25.58	26.70
22	---	---	---	---	---	---	---	---	26.88	26.19	25.60	26.42
23	---	---	---	---	---	---	---	---	27.37	26.37	25.67	26.23
24	---	---	---	---	---	---	---	---	27.52	26.35	25.80	26.06
25	---	---	---	---	---	---	---	---	27.35	26.20	26.04	25.85
26	---	---	---	---	---	---	---	---	27.26	26.08	26.27	25.72
27	---	---	---	---	---	---	---	---	27.13	26.11	26.49	25.72
28	---	---	---	---	---	---	---	---	26.98	26.36	26.63	25.82
29	---	---	---	---	---	---	---	---	26.90	26.80	26.54	25.94
30	---	---	---	---	---	---	---	---	26.76	26.94	26.31	26.13
31	---	---	---	---	---	---	---	---	---	26.77	26.12	---
MEAN	---	---	---	---	---	---	---	---	---	26.40	26.30	26.43
MAX	---	---	---	---	---	---	---	---	---	26.94	28.03	28.13
MIN	---	---	---	---	---	---	---	---	---	25.99	25.58	25.54

15304000 KUSKOKWIM RIVER AT CROOKED CREEK

LOCATION.--Lat 61°52′16″, long 158°06′03″, in NE¼ NE¼ sec. 32, T. 21 N., R. 48 W. (Sleetmute D-6 quad), Hydrologic Unit 19030501, on right bank at village of Crooked Creek, 0.1 mi upstream from Crooked Creek.

DRAINAGE AREA.--31,100 mi^2, approximately.

PERIOD OF RECORD.--June 1951 to September 1994, October 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 200 ft above sea level, from topographic map. Prior to August 6, 1977, non-recording gage at site 1,600 ft upstream at same datum. From August 6, 1977, to September 30, 1991, water-stage recorder at site 2,300 ft upstream at same datum. From October 1, 1991 to September 30, 1994, and October 1, 1995 to August 7, 1997 non-recording gage.

REMARKS.--Records good except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40700	e27000	e17000	e11000	e9400	e8800	e8200	e16000	e120000	59000	52500	52300
2	40000	e27000	e16000	e11000	e9400	e8800	e8200	e18000	e116000	57300	50200	52400
3	40400	e26000	e16000	e11000	e9400	e8800	e8200	e20000	e112000	56700	48500	53100
4	41200	e26000	e16000	e10500	e9400	e8800	e8200	e23000	e110000	56000	47000	51900
5	40700	e25000	e16000	e10500	e9400	e8800	e8200	e26000	108000	56000	46000	49800
6	41700	e25000	e15000	e10500	e9400	e8800	e8200	e30000	105000	56800	46700	49300
7	44200	e24000	e15000	e10500	e9400	e8800	e8200	e35000	104000	56400	46800	50600
8	49100	e24000	e14500	e10500	e9200	e8800	e8200	e44000	103000	55100	48900	53200
9	51500	e23000	e14500	e10500	e9200	e8600	e8200	e55000	102000	55600	56700	55200
10	50900	e23000	e14000	e10500	e9200	e8600	e8200	e70000	98500	55500	59800	56500
11	49100	e23000	e14000	e10000	e9200	e8600	e8200	e90000	93800	54200	59500	57300
12	48800	e22000	e14000	e10000	e9200	e8600	e8200	e104000	90600	53900	60400	59700
13	47200	e22000	e13500	e10000	e9200	e8600	e8200	e114000	87800	52900	60800	62700
14	44900	e21000	e13500	e10000	e9200	e8600	e8000	e125000	84100	52000	59600	68400
15	42900	e21000	e13000	e10000	e9200	e8600	e8000	e140000	79200	51300	58200	71800
16	42100	e21000	e13000	e9800	e9000	e8600	e8000	e170000	74100	50500	55900	73100
17	41500	e22000	e12500	e9800	e9000	e8600	e8000	e165000	70600	49800	52200	74300
18	39300	e22000	e12500	e9800	e9000	e8400	e8000	161000	68900	49500	50200	72400
19	39400	e22000	e12000	e9800	e9000	e8400	e8000	156000	68100	49400	47800	69000
20	38000	e21000	e12000	e9800	e9000	e8400	e8000	154000	68500	48500	46400	64800
21	35900	e21000	e12000	e9800	e9000	e8400	e8000	151000	69900	49000	45600	61300
22	33500	e20000	e12000	e9600	e9000	e8400	e8000	149000	69800	49300	47700	58000
23	31600	e20000	e11500	e9600	e9000	e8400	e8000	146000	69000	48700	51900	55800
24	31300	e19000	e11500	e9600	e9000	e8400	e8000	142000	69400	48600	56900	54100
25	30800	e19000	e11500	e9600	e9000	e8400	e8500	138000	69300	49000	60400	53300
26	e29500	e18000	e11500	e9600	e8800	e8400	e9000	136000	67700	50700	61700	54100
27	e29000	e18000	e11000	e9600	e8800	e8400	e10000	135000	66600	52900	60800	54300
28	e28000	e18000	e11000	e9600	e8800	e8400	e11000	134000	65700	53900	58400	55000
29	e28000	e17000	e11000	e9600	---	e8200	e12000	133000	63100	54300	56700	56800
30	e28000	e17000	e11000	e9600	---	e8200	e14000	e130000	60400	54900	54800	61500
31	e28000	---	e11000	e9400	---	e8200	---	e124000	---	54400	53400	---
TOTAL	1207200	654000	409000	311100	255800	264800	259100	3234000	2535100	1642100	1662400	1762000
MEAN	38940	21800	13190	10040	9136	8542	8637	104300	84500	52970	53630	58730
MAX	51500	27000	17000	11000	9400	8800	14000	170000	120000	59000	61700	74300
MIN	28000	17000	11000	9400	8800	8200	8000	16000	60400	48500	45600	49300
AC-FT	2394000	1297000	811300	617100	507400	525200	513900	6415000	5028000	3257000	3297000	3495000
CFSM	1.25	0.70	0.42	0.32	0.29	0.27	0.28	3.35	2.72	1.70	1.72	1.89
IN.	1.44	0.78	0.49	0.37	0.31	0.32	0.31	3.87	3.03	1.96	1.99	2.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	44240	21310	15240	12960	11590	10680	14380	80370	82890	67880	75830	69220
MAX	102000	36400	25000	22450	20710	19550	41000	161700	235100	119500	169800	150900
(WY)	1994	1991	1962	1991	1991	1991	1967	1957	1964	1980	1963	1951
MIN	22650	12730	10000	8400	6900	6100	8600	22130	33880	40910	41840	30550
(WY)	1979	1981	1957	1966	1966	1966	1953	1964	1954	1997	1957	1976

\# See Period of Record, partial years used in monthly statistics
e Estimated

15304000 KUSKOKWIM RIVER AT CROOKED CREEK—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002#	
ANNUAL TOTAL	15964800		14196600			
ANNUAL MEAN	43740		38890		42230	
HIGHEST ANNUAL MEAN					62120	1963
LOWEST ANNUAL MEAN					28600	1997
HIGHEST DAILY MEAN	124000	May 22	170000	May 16	391000	Jun 5 1964
LOWEST DAILY MEAN	a9000	Apr 1	b8000	Apr 14	c6100	Mar 1 1966
ANNUAL SEVEN-DAY MINIMUM	9140	Mar 30	8000	Apr 14	6100	Mar 1 1966
MAXIMUM PEAK FLOW			d181000	May 16	392000	Jun 5 1964
MAXIMUM PEAK STAGE			d15.66	May 16		
MAXIMUM PEAK STAGE			f22.61	May 14	g25.74	Jun 5 1964
ANNUAL RUNOFF (AC-FT)	31670000		28160000		30590000	
ANNUAL RUNOFF (CFSM)	1.41		1.25		1.36	
ANNUAL RUNOFF (INCHES)	19.10		16.98		18.45	
10 PERCENT EXCEEDS	102000		76300		93700	
50 PERCENT EXCEEDS	27000		26000		26000	
90 PERCENT EXCEEDS	10000		8400		10000	

\# See Period of Record, partial years used in monthly computations
a Apr. 1-5
b Apr. 14-24
c Mar. 1-31, 1966
d Maximum observed, but may have been higher during period of missing record.
f From floodmarks, backwater from ice
g From floodmarks, backwater from ice, at different site, same datum

15304060 KUSKOKWIM RIVER AT ANIAK

LOCATION.--Lat 61°35′14″, long 159°32′54″, in SE$^1/_4$ SE$^1/_4$ sec. 2, T. 17 N., R. 57 W. (Russian Mission C-2 quad), Hydrologic unit 19030502, on the left bank near the NW corner of the west end of the runway in the village of Aniak.

WATER-STAGE RECORDS

PERIOD OF RECORD.--May 1996 to present (no winter record).

GAGE.--Water-stage recorder. A supplementary stage gage was installed April 23, 1998 approximately 1 mi upstream from gage of record. This gage records water elevation at the Aniak city dike system during ice break-up events. Elevation of the gage is 75 ft above sea level from topographic map.

REMARKS.--GOES satellite telemetry at station. Supplementary stage records are available from the computer files of the Alaska District.

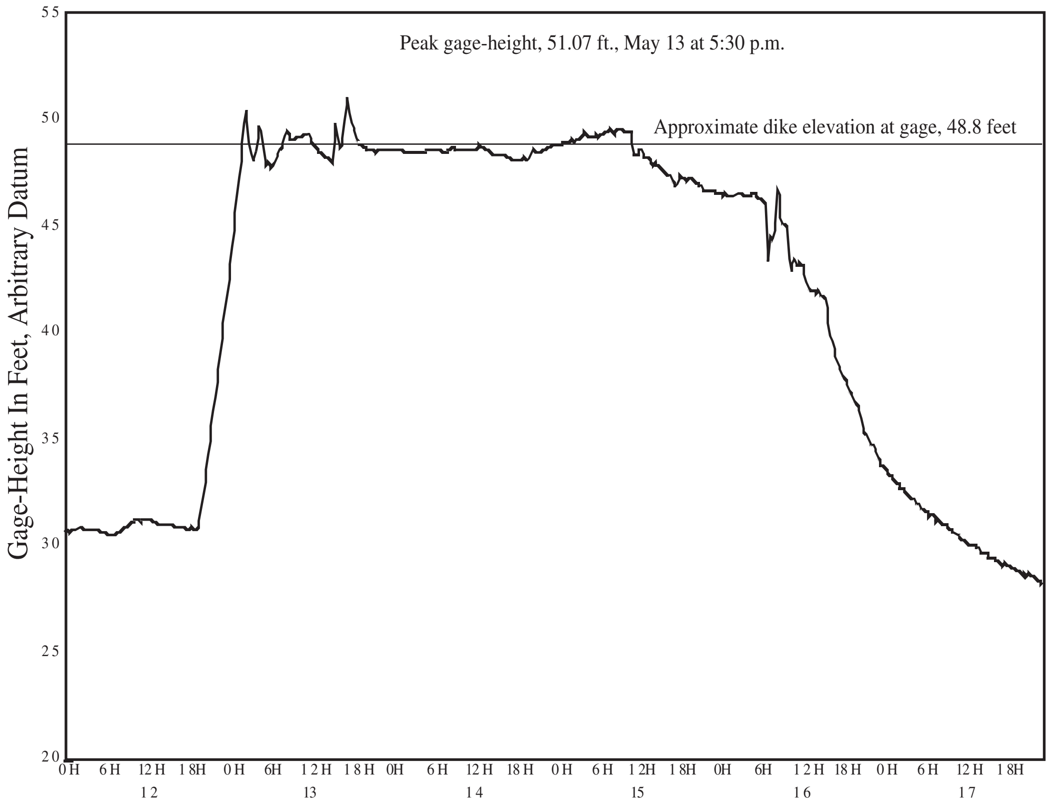
EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed 26.97 ft, May 18,2002, but may have been higher during periods of missing record. Minimum gage height observed 14.37 ft, October 27, 2000, but may have been lower during periods of missing record.

EXTREMES FOR CURRENT PERIOD.--October 1-20, 2001 and May 18 to September 30, 2002: Maximum gage height observed 26.97 ft, May 18, but may have been higher during periods of missing record. Minimum gage height observed 16.28 ft, Oct. 20, but may have been lower during periods of missing record.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.73	---	---	---	---	---	---	---	23.40	18.75	17.88	17.92
2	16.67	---	---	---	---	---	---	---	23.13	18.58	17.72	17.83
3	16.79	---	---	---	---	---	---	---	22.95	18.50	17.50	17.86
4	16.77	---	---	---	---	---	---	---	22.68	18.47	17.36	17.86
5	17.04	---	---	---	---	---	---	---	22.68	18.45	17.21	17.77
6	17.30	---	---	---	---	---	---	---	22.59	18.42	17.14	17.73
7	17.70	---	---	---	---	---	---	---	22.29	18.39	17.10	17.77
8	18.02	---	---	---	---	---	---	---	22.19	18.31	17.18	17.90
9	18.24	---	---	---	---	---	---	---	22.08	18.24	17.45	18.03
10	18.16	---	---	---	---	---	---	---	22.09	18.36	18.08	18.16
11	18.02	---	---	---	---	---	---	---	21.88	18.22	18.21	18.28
12	17.87	---	---	---	---	---	---	---	21.65	18.13	18.19	18.46
13	17.81	---	---	---	---	---	---	---	21.44	18.09	18.31	18.80
14	17.39	---	---	---	---	---	---	---	21.15	17.94	18.34	19.21
15	17.34	---	---	---	---	---	---	---	20.78	17.94	18.26	19.50
16	17.08	---	---	---	---	---	---	---	20.40	17.95	18.13	19.59
17	17.02	---	---	---	---	---	---	---	20.05	17.90	17.91	19.63
18	17.05	---	---	---	---	---	---	26.26	19.81	17.64	17.69	19.58
19	16.72	---	---	---	---	---	---	25.85	19.68	17.65	17.51	19.38
20	16.68	---	---	---	---	---	---	25.96	19.65	17.64	17.32	19.10
21	---	---	---	---	---	---	---	25.85	19.62	17.54	17.19	18.79
22	---	---	---	---	---	---	---	25.68	19.62	17.58	17.28	18.51
23	---	---	---	---	---	---	---	25.54	19.51	17.49	17.56	18.25
24	---	---	---	---	---	---	---	25.37	19.44	17.44	18.01	18.09
25	---	---	---	---	---	---	---	24.99	19.43	17.49	18.41	17.98
26	---	---	---	---	---	---	---	24.85	19.39	17.62	18.62	17.88
27	---	---	---	---	---	---	---	24.53	19.28	17.84	18.64	17.96
28	---	---	---	---	---	---	---	24.47	19.16	18.06	18.49	18.07
29	---	---	---	---	---	---	---	24.32	19.02	18.03	18.31	18.26
30	---	---	---	---	---	---	---	23.90	18.88	18.00	18.16	18.56
31	---	---	---	---	---	---	---	23.67	---	17.99	18.02	---
MEAN	---	---	---	---	---	---	---	---	20.86	18.02	17.84	18.42
MAX	---	---	---	---	---	---	---	---	23.40	18.75	18.64	19.63
MIN	---	---	---	---	---	---	---	---	18.88	17.44	17.10	17.73

15304060 KUSKOKWIM RIVER AT ANIAK—Continued



River ice break-up hydrograph for Kuskokwim River at Dike (supplementary gage) at Aniak, 2002

15304060 KUSKOKWIM RIVER AT ANIAK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1998 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1998 to current year (seasonal).

INSTRUMENTATION.--Electronic water temperature recorder set for 1-hour recording interval on left bank.

REMARKS.--Records represent water temperature from sensor within 0.5°C. No water temperature record October 1-June 6 due to probe failure. No record from August 4-6 except for minimums was due to low water over probe. Temperature at the sensor was compared with the stream average by cross section on September 19 which found a variation of 1.0°C. The variation found between mean stream temperature and sensor temperature was usually less than 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum recorded, 16.0°C, July 18, 2002, may have been higher during periods of missing record; minimum, 0.0°C, May 14-15, 1999.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 16.0°C, July 18, may have been higher during periods of missing record; minimum recorded, 5.0°C, September 22-23.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	TEMPER-ATURE WATER (DEG C) (00010)	SAM-PLING METHOD, CODES (82398)
SEP						
19...	1431	2000	5.0	19.31	6.5	10
19...	1432	2000	400	19.31	7.5	10
19...	1433	2000	800	19.31	7.5	10
19...	1434	2000	1200	19.31	7.5	10
19...	1435	2000	1600	19.31	7.5	10

TEMPERATURE, WATER (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	10.5	10.0	10.0	15.0	13.5	14.0	11.5	10.0	10.5
2	---	---	---	10.5	10.0	10.5	15.0	13.5	14.0	11.0	10.0	10.5
3	---	---	---	10.0	9.0	9.5	14.5	13.0	14.0	10.5	9.5	10.0
4	---	---	---	9.0	8.5	9.0	---	12.5	---	10.0	9.5	10.0
5	---	---	---	9.0	8.5	8.5	---	12.5	---	10.5	10.0	10.0
6	---	---	---	10.0	9.0	9.5	---	13.5	---	10.5	10.0	10.0
7	8.5	---	---	10.0	10.0	10.0	13.5	12.5	13.0	10.5	9.5	10.0
8	9.0	8.5	8.5	10.0	9.5	9.5	13.5	11.5	12.5	10.0	9.5	10.0
9	8.5	7.5	8.0	10.0	9.5	10.0	12.5	11.5	12.0	9.5	8.5	9.0
10	8.5	7.0	7.5	10.0	9.5	10.0	12.5	11.0	12.0	8.5	8.5	8.5
11	8.5	8.0	8.5	10.5	10.0	10.0	12.0	11.0	11.5	8.5	8.0	8.5
12	9.0	8.0	8.5	11.0	10.5	10.5	12.5	11.0	12.0	8.5	8.0	8.5
13	10.0	9.0	9.5	11.0	10.5	11.0	12.5	11.0	12.0	9.0	8.5	8.5
14	11.0	10.0	10.5	11.0	10.5	10.5	13.0	11.0	12.0	9.0	8.5	8.5
15	11.5	10.5	11.0	10.5	9.5	10.0	13.0	11.5	12.0	8.5	8.0	8.5
16	12.5	11.5	12.0	12.0	10.5	11.0	12.0	11.0	11.5	8.0	7.0	7.5
17	13.0	12.0	12.5	13.5	11.0	12.0	11.5	10.5	11.0	8.0	7.0	7.5
18	13.0	12.0	12.5	16.0	12.5	13.5	12.0	11.0	11.5	7.5	6.5	7.0
19	12.0	11.0	11.5	15.0	14.0	14.5	12.0	10.0	11.0	6.5	6.0	6.5
20	11.0	9.5	10.0	14.5	13.0	14.0	11.0	10.0	10.0	6.0	5.5	6.0
21	10.0	9.5	10.0	14.0	12.5	13.5	10.0	9.0	9.5	6.0	5.0	5.5
22	10.5	9.5	10.0	14.5	12.5	13.5	10.5	9.5	10.0	6.0	5.0	5.5
23	11.0	10.0	10.5	14.5	13.5	14.0	11.5	10.0	10.5	6.5	5.5	6.0
24	11.0	10.0	10.5	13.5	12.5	13.0	12.0	10.5	11.5	8.0	6.5	7.0
25	11.0	10.0	10.5	13.0	12.0	12.5	12.5	11.0	12.0	8.0	7.5	7.5
26	11.0	10.0	10.5	12.5	11.5	12.0	12.0	11.0	11.5	8.0	7.5	7.5
27	11.5	10.5	10.5	12.5	11.5	12.0	12.0	11.0	11.5	7.5	7.5	7.5
28	11.5	10.5	11.0	12.5	11.0	12.0	11.5	11.0	11.5	8.0	7.0	7.5
29	11.0	10.5	11.0	13.5	11.5	12.5	11.0	10.0	10.5	8.0	7.5	7.5
30	10.5	10.0	10.0	14.0	12.0	13.0	10.5	10.0	10.5	7.5	7.0	7.0
31	---	---	---	14.5	12.5	13.5	11.5	10.0	10.5	---	---	---
MONTH	---	---	---	16.0	8.5	11.5	---	9.0	---	11.5	5.0	8.1

15356000 YUKON RIVER AT EAGLE
(International Gaging Station)

LOCATION.--Lat 64°47′22″, long 141°11′52″, in NW$^1/_4$ sec. 31, T. 1 S., R. 33 E. (Eagle D-1 quad), Hydrologic Unit 19040401, on left bank at Eagle, 0.1 mi upstream from Mission Creek, 1.1 mi downstream from Castalia Creek, and 11 mi downstream from the international boundary.

DRAINAGE AREA.--113,500 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1911 to December 1913, June 1950 to current year. Monthly discharge only for some periods, published in WSP 1372.

GAGE.--Water-stage recorder. Elevation of gage is 850 ft above sea level, from topographic map. See WSP 1936 for history of changes prior to October 1, 1963. Nonrecording gage prior to June 26, 1982 at same site and datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107000	e52000	e33000	e25000	e21000	e18000	e16000	e17000	180000	127000	194000	205000
2	104000	e51000	e33000	e25000	e20000	e18000	e16000	e18000	182000	126000	185000	203000
3	102000	e50000	e32000	e25000	e20000	e17000	e16000	e24000	172000	125000	171000	202000
4	99600	e49000	e32000	e24000	e20000	e17000	e16000	e32000	165000	127000	154000	201000
5	97900	e48000	e32000	e24000	e20000	e17000	e15000	e43000	157000	131000	142000	198000
6	96800	e48000	e31000	e24000	e20000	e17000	e15000	e62000	152000	133000	134000	193000
7	95700	e47000	e31000	e24000	e20000	e17000	e15000	e100000	157000	132000	130000	186000
8	94800	e46000	e31000	e24000	e20000	e17000	e15000	e150000	171000	125000	130000	183000
9	93900	e45000	e30000	e24000	e20000	e17000	e15000	e220000	177000	121000	132000	182000
10	92100	e44000	e30000	e23000	e20000	e17000	e15000	e260000	178000	125000	133000	177000
11	90200	e44000	e30000	e23000	e20000	e17000	e15000	e280000	184000	131000	133000	178000
12	88200	e43000	e29000	e23000	e19000	e17000	e15000	e300000	223000	130000	133000	173000
13	87900	e42000	e29000	e23000	e19000	e17000	e15000	e310000	223000	131000	134000	164000
14	85500	e41000	e29000	e23000	e19000	e16000	e15000	e300000	205000	135000	140000	155000
15	81700	e41000	e29000	e23000	e19000	e16000	e15000	e290000	193000	138000	149000	147000
16	77900	e40000	e28000	e23000	e19000	e16000	e15000	e280000	182000	135000	151000	140000
17	76300	e39000	e28000	e22000	e19000	e16000	e15000	e250000	171000	136000	153000	135000
18	e75000	e39000	e28000	e22000	e19000	e16000	e15000	e220000	160000	136000	155000	130000
19	e73000	e38000	e28000	e22000	e19000	e16000	e15000	e200000	153000	134000	159000	126000
20	e71000	e38000	e27000	e22000	e19000	e16000	e15000	e190000	148000	138000	163000	124000
21	e69000	e37000	e27000	e22000	e18000	e16000	e15000	e180000	147000	141000	169000	121000
22	e67000	e37000	e27000	e22000	e18000	e16000	e16000	e170000	147000	136000	182000	119000
23	e65000	e36000	e27000	e22000	e18000	e16000	e16000	173000	143000	131000	201000	116000
24	e63000	e36000	e26000	e22000	e18000	e16000	e16000	173000	139000	128000	208000	113000
25	e62000	e36000	e26000	e21000	e18000	e16000	e16000	175000	137000	127000	215000	111000
26	e60000	e35000	e26000	e21000	e18000	e16000	e16000	174000	136000	134000	221000	109000
27	e59000	e35000	e26000	e21000	e18000	e16000	e16000	171000	136000	157000	223000	107000
28	e57000	e34000	e26000	e21000	e18000	e16000	e16000	167000	135000	160000	226000	104000
29	e56000	e34000	e25000	e21000	---	e16000	e16000	161000	131000	170000	225000	102000
30	e54000	e33000	e25000	e21000	---	e16000	e17000	160000	128000	199000	218000	101000
31	e53000	---	e25000	e21000	---	e16000	---	177000	---	200000	209000	---
TOTAL	2455500	1238000	886000	703000	536000	511000	464000	5427000	4912000	4299000	5272000	4505000
MEAN	79210	41270	28580	22680	19140	16480	15470	175100	163700	138700	170100	150200
MAX	107000	52000	33000	25000	21000	18000	17000	310000	223000	200000	226000	205000
MIN	53000	33000	25000	21000	18000	16000	15000	17000	128000	121000	130000	101000
AC-FT	4870000	2456000	1757000	1394000	1063000	1014000	920300	10760000	9743000	8527000	10460000	8936000
CFSM	0.70	0.36	0.25	0.20	0.17	0.15	0.14	1.54	1.44	1.22	1.50	1.32
IN.	0.80	0.41	0.29	0.23	0.18	0.17	0.15	1.78	1.61	1.41	1.73	1.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	74590	38130	25710	21040	18790	17200	19260	125000	224000	182300	144900	112900
MAX	133300	62500	38870	30390	28000	25480	41530	201500	456800	269500	200400	187900
(WY)	2001	1953	2001	2001	1977	1977	1990	1993	1964	1992	2000	2000
MIN	45870	24000	13000	9000	7200	7800	8650	61770	120900	108900	88710	70690
(WY)	1959	1959	1951	1951	1951	1956	1956	1964	1953	1998	1998	1998

\# See Period of Record; partial years used in monthly statistics
e Estimated

15356000 YUKON RIVER AT EAGLE—Continued
(International Gaging Station)

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002#	
ANNUAL TOTAL	34890500		31208500			
ANNUAL MEAN	95590		85500		84260	
HIGHEST ANNUAL MEAN					110900	1964
LOWEST ANNUAL MEAN					61020	1958
HIGHEST DAILY MEAN	360000	Jun 18	310000	May 13	545000	Jun 12 1964
LOWEST DAILY MEAN	a21000	Mar 30	b15000	Apr 5	c7200	Feb 1 1951
ANNUAL SEVEN-DAY MINIMUM	21000	Mar 30	15000	Apr 5	7200	Feb 1 1951
MAXIMUM PEAK FLOW			d		545000	Jun 12 1964
MAXIMUM PEAK STAGE			f29.09	May 13	33.85	Jun 12 1964
ANNUAL RUNOFF (AC-FT)	69210000		61900000		61040000	
ANNUAL RUNOFF (CFSM)	0.84		0.75		0.74	
ANNUAL RUNOFF (INCHES)	11.44		10.23		10.09	
10 PERCENT EXCEEDS	228000		184000		199000	
50 PERCENT EXCEEDS	47000		49000		44000	
90 PERCENT EXCEEDS	22000		16000		16000	

See Period of Record; partial years used in monthly statistics
a From Mar. 30 - Apr. 21
b From Apr. 5 - Apr. 21
c Feb. 1-28, 1951
d Not determined, see highest daily mean
f Observed, backwater from ice

15356000 YUKON RIVER AT EAGLE—Continued
(International Gaging Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-57, 1962-70, 1974-76, 1978-79, and 2001 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT: 1962 TO 1966.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	SAMPLE LOC-ATION, CROSS SECTION (FT FM R BK) (72103)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
MAR									
21...	0930	200	--	--	7.6	.0	765	9.2	--
21...	1022	460	--	--	7.6	.0	765	9.2	--
21...	1034	365	--	--	7.6	.0	765	9.2	--
21...	1054	550	--	--	7.6	.0	765	9.2	--
21...	1115	665	--	--	7.6	.0	765	9.3	--
MAY									
22...	1415	--	340.0	158	8.2	7.5	755	11.7	99
22...	1417	--	560.0	156	8.1	7.7	755	11.7	99
22...	1418	--	770.0	154	8.1	7.7	755	11.8	99
22...	1419	--	930.0	153	8.1	7.7	755	11.8	99
22...	1421	--	1120	153	8.1	7.7	755	11.8	100
JUN									
11...	1516	--	480.0	182	8.1	13.0	750	9.6	93
11...	1518	--	650.0	182	8.1	12.9	750	9.5	92
11...	1519	--	800.0	181	8.1	12.9	750	9.7	93
11...	1520	--	1130	181	8.1	13.0	750	9.6	93
11...	1521	--	980.0	181	8.1	13.0	750	9.7	94
JUL									
10...	1220	--	470.0	225	8.2	16.8	753	--	--
10...	1224	--	650.0	222	8.2	16.9	753	8.8	92
10...	1227	--	810.0	221	8.2	16.9	753	9.2	96
10...	1229	--	950.0	221	8.2	16.9	753	9.0	94
10...	1231	--	1130	221	8.2	16.9	753	--	--
AUG									
01...	1240	--	1120	188	8.0	13.2	765	9.8	94
01...	1242	--	930.0	188	8.1	13.2	765	9.8	94
01...	1244	--	770.0	189	8.1	13.2	765	9.8	93
01...	1246	--	560.0	190	8.1	13.2	765	9.8	94
01...	1250	--	340.0	192	8.1	13.2	765	9.8	93
28...	1311	--	1200	205	7.8	10.5	744	11.4	105
28...	1313	--	950.0	205	7.9	10.5	744	11.2	103
28...	1315	--	800.0	205	7.9	10.5	744	11.4	105
28...	1317	--	650.0	208	8.0	10.5	744	11.3	104
28...	1320	--	440.0	211	8.0	10.5	744	11.3	104
SEP									
25...	1400	--	470.0	222	8.0	6.6	747	11.6	97
25...	1401	--	650.0	222	8.0	6.6	747	11.6	97
25...	1402	--	800.0	222	8.0	6.5	747	11.7	97
25...	1403	--	970.0	221	8.0	6.6	747	11.7	97
25...	1404	--	1150	221	8.1	6.5	747	11.7	97

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	QUALITY ASSUR-ANCE DATA INDICA-TOR CODE (99111)	REP-LICATE TYPE (CODE) (99105)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)
MAR													
21...	1020	9	7	1060	--	16100	20	3060	100	--	265	7.7	-7.0
MAY													
22...	1420	9	9	1370	17.40	177000	20	3055	30	--	154	8.1	--
JUN													
11...	1410	9	9	1480	17.78	183000	20	3055	30	--	182	8.1	--
JUL													
10...	1120	9	9	1360	13.89	126000	20	3055	30	--	222	8.2	--
AUG													
01...	1150	9	7	1500	18.50	195000	20	3055	30	10.00	189	8.1	--
28...	1240	9	9	--	20.30	226000	20	3055	30	--	205	7.9	--
SEP													
25...	1000	9	9	--	12.71	111000	20	3055	100	--	222	8.0	9.5

15356000 YUKON RIVER AT EAGLE—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TEMPER- ATURE WATER (DEG C) (00010)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB- ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB- ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
MAR													
21...	.0	1.3	.036	.026	765	9.2	63	130	36.1	9.81	2.73	109	1.11
MAY													
22...	8.0	110	.537	.407	755	11.7	100	77	20.9	5.90	1.62	53	1.15
JUN													
11...	13.0	83	.228	.170	750	9.6	93	89	24.1	7.06	2.10	62	.98
JUL													
10...	16.9	230	--	--	753	8.9	93	110	29.1	8.34	2.69	80	1.46
AUG													
01...	13.2	390	.317	.237	765	9.8	94	94	26.0	6.96	2.36	65	1.32
28...	10.5	150	.212	.156	744	11.3	104	100	27.4	7.97	2.02	70	.93
SEP													
25...	6.5	16	--	--	747	11.7	97	110	30.7	8.80	2.33	78	1.01

Date	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY WAT DIS FIX END FIELD CACO3 (MG/L) (39036)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAR													
21...	133	.0	109	110	31.6	.45	.1	6.98	166	155	<.002	.096	<.015
MAY													
22...	64	.0	53	--	20.8	.36	E.10	4.73	116	87	.003	.013	<.015
JUN													
11...	76	.0	62	--	26.4	.42	E.08	6.09	124	105	<.002	.037	<.015
JUL													
10...	95	.0	78	--	33.1	.62	E.11	5.79	129	128	<.002	.024	<.015
AUG													
01...	79	.0	64	--	26.0	.40	.16	7.35	125	110	E.002	.036	<.015
28...	86	.0	70	--	33.8	.34	E.10	6.57	131	122	<.002	.047	<.015
SEP													
25...	101	.0	78	--	32.5	.69	.12	6.84	140	133	<.002	.030	<.015

Date	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	NITRO- GEN, TOTAL, SEDIMNT SUSP, (WEIGHT PERCNT) (62845)	PHOS- PHORUS SEDI- MENT SUSP. PERCENT (30292)	ALUM- INUM SED,SUS PERCENT (30221)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	AN- TIMONY SED. SUSP. (UG/G) (29816)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC SED. SUSP. (UG/G) (29818)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
MAR													
21...	E.08	<.10	E.003	E.002	<.007	--	--	--	2	--	.18	--	.4
MAY													
22...	.75	.41	.49	.010	<.007	.12	.100	6.5	49	1.7	.11	14	.5
JUN													
11...	.38	.17	.35	.005	<.007	<.10	.100	6.8	30	1.4	.16	10	.5
JUL													
10...	.18	E.08	.40	<.004	<.007	<.10	.100	6.9	23	2.1	.22	13	.5
AUG													
01...	.47	.23	1.22	E.004	<.007	<.10	.100	6.3	31	1.4	.18	11	.6
28...	.88	.17	.69	E.003	<.007	<.10	.100	6.3	36	1.4	.20	9.8	.6
SEP													
25...	1.1	.11	.089	E.002	<.007	<.10	.090	6.7	17	1.2	.21	7.5	.4

Date	BARIUM SED. SUSP. (UG/G) (29820)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM SED. SUSP. (UG/G) (29822)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM SED. SUSP. (UG/G) (29826)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM SED. SUSP. (UG/G) (29829)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT SEDI- MENT SUSP. (UG/G) (35031)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER SED. SUSP. (UG/G) (29832)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
MAR													
21...	--	55	--	<.06	11	--	E.02	--	<.8	--	.07	--	1.0
MAY													
22...	1300	37	2	<.06	E7	1.1	.06	100	<.8	15	.18	33	3.8
JUN													
11...	870	37	1	<.06	E5	.5	E.02	98	<.8	16	.10	33	2.2
JUL													
10...	690	41	2	<.06	12	.3	<.04	94	<.8	18	.08	39	1.4
AUG													
01...	610	33	1	<.06	12	.3	E.02	91	<.8	15	.15	33	3.5
28...	910	40	1	<.06	E6	.9	E.03	93	<.8	15	.13	31	2.3
SEP													
25...	890	42	2	<.06	8	.3	E.02	150	<.8	15	.10	28	1.6

15356000 YUKON RIVER AT EAGLE—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	IRON SEDI- MENT SUSP. PERCENT (30269)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD SED. SUSP. (UG/G) (29836)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM SEDI- MENT SUSP. (UG/G) (35050)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MAN- GANESE SED. SUSP. (UG/G) (29839)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY SED. SUSP. (UG/G) (29841)	MOLYB- DENUM SED. SUSP. (UG/G) (29843)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL SED. SUSP. (UG/G) (29845)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
MAR													
21...	--	E8	--	<.08	--	2.4	--	1.7	--	--	1.4	--	1.16
MAY													
22...	3.6	127	14	.12	29	1.9	860	18.8	.08	3	.7	53	3.33
JUN													
11...	3.9	43	13	<.08	24	2.0	840	3.4	.05	3	.8	48	2.02
JUL													
10...	4.4	<10	12	<.08	29	3.2	770	.8	.04	2	1.5	45	1.45
AUG													
01...	3.9	48	12	<.08	22	2.4	670	5.3	.03	2	1.1	38	2.12
28...	3.7	40	11	E.05	23	2.4	760	8.2	.19	2	1.0	44	1.88
SEP													
25...	3.3	26	17	<.08	21	2.6	740	3.9	.13	10	1.1	90	1.26

Date	SELE- NIUM SED. SUSP. (UG/G) (29847)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER SED. SUSP. (UG/G) (29850)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM SEDI- MENT SUSP. (UG/G) (35040)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	THAL- LIUM SUS SED (UG/G) (49955)	TITA- NIUM SEDI- MENT SUSP. PERCENT (30317)	VANA- DIUM SED. SUSP. (UG/G) (29853)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC SED. SUSP. (UG/G) (29855)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM SEDI- MENT SUSP. (UG/G) (35046)
MAR													
21...	--	.6	--	<1	--	163	--	--	--	<.2	--	3	--
MAY													
22...	M	.4	<.5	<1	300	96.0	<50	.420	140	.4	170	4	<50
JUN													
11...	M	E.3	<.5	<1	340	111	<50	.460	120	1.0	110	3	<50
JUL													
10...	M	.4	M	<1	350	139	<50	.450	130	.8	97	<1	<50
AUG													
01...	M	E.3	<.5	<1	340	109	<50	.430	110	.7	75	1	<50
28...	1	.7	<.5	<1	340	128	<50	.440	130	.5	100	3	<50
SEP													
25...	M	E.3	M	<1	460	133	<50	.430	110	.3	120	6	<50

Date	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, INOR- GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON SED. SUSP. PERCENT (30244)	CARBON, ORGANIC SUS- PENDED, TOTAL PERCENT (50465)	NITRO- GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	SEDI- MENT SUSP., FLOW- THROUGH CENTRIF (MG/L) (50279)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR												
21...	1.17	1.6	<.1	.2	.2	--	--	<.02	--	2.0	86.9	--
MAY												
22...	.69	13.6	.2	5.6	5.8	2.0	1.4	.41	391	603	288000	74
JUN												
11...	.74	6.4	.4	3.5	3.8	1.8	.9	.12	299	282	139000	62
JUL												
10...	.87	--	--	--	--	2.8	.5	--	422	399	136000	86
AUG												
01...	.78	9.2	12.8	7.8	20.6	2.5	.7	.39	1040	1040	547000	77
28...	.82	6.3	2.1	9.6	11.7	2.2	.9	.38	670	695	424000	60
SEP												
25...	.96	3.8	<.1	.3	.3	2.0	.9	.03	99	116	34800	33

15388960 PORCUPINE RIVER NEAR INTERNATIONAL BOUNDARY
(International Gaging Station)

LOCATION.--Lat 67°25′27″, long 140°53′28″, 3.1 mi upstream from old townsite of Ramparts House, at Alaska-Yukon Territory Boundary.

DRAINAGE AREA.--23,100 mi^2, approximately.

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 600 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Differences between data published herein and corresponding data in the reports of the Water Survey of Canada are due to variations in automated program techniques. After December 1978, data published in reports of the Water Survey of Canada are in International System (SI) units, and have been converted to inch-pound units for this report. Because the Water Survey of Canada computes discharge records by calandar year, data reported here are one year prior to those reported for U.S. gages.

COOPERATION.--Discharge records furnished by the Water Survey of Canada.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3850	e1710	e1220	e1060	e1020	e900	e847	e819	e12600	11800	10200	8900
2	e3670	e1680	e1210	e1060	e1020	e897	e847	e823	e21800	10300	16700	8400
3	e3570	e1660	e1200	e1060	e1010	e893	e851	e826	e32800	9320	19800	8050
4	e3570	e1630	e1190	e1060	e1010	e886	e851	e826	e56500	8790	17800	7910
5	e3530	e1620	e1180	e1070	e1000	e876	e847	e833	e81200	8370	15300	8020
6	e3430	e1600	e1170	e1070	e999	e876	e847	e833	96000	8230	13600	8930
7	e3370	e1580	e1170	e1070	e996	e872	e844	e837	106000	8720	11900	14600
8	e3300	e1560	e1170	e1070	e992	e865	e840	e844	108000	18500	10500	23800
9	e3060	e1550	e1160	e1060	e989	e876	e833	e844	103000	37800	9680	24400
10	e3020	e1510	e1160	e1060	e978	e876	e826	e851	91500	37400	9180	21800
11	e2930	e1480	e1150	e1060	e978	e876	e819	e855	78000	32600	8790	21200
12	e2860	e1460	e1140	e1060	e967	e876	e819	e858	73800	28300	8860	24400
13	e2780	e1450	e1140	e1060	e964	e876	e819	e862	74500	23900	14200	23400
14	e2680	e1430	e1130	e1050	e964	e876	e816	e876	73800	20500	27200	20300
15	e2590	e1420	e1130	e1050	e960	e876	e816	e890	73400	18700	32600	17300
16	e2500	e1400	e1120	e1050	e957	e869	e816	e907	72400	16800	35300	14800
17	e2410	e1390	e1110	e1050	e953	e869	e816	e922	69600	14900	37800	12900
18	e2360	e1370	e1110	e1050	e950	e869	e816	e936	67100	15200	55100	11700
19	e2310	e1360	e1110	e1050	e946	e876	e816	e950	58300	14000	63200	10900
20	e2240	e1340	e1100	e1050	e943	e872	e812	e982	47300	12200	53000	9990
21	e2180	e1330	e1100	e1050	e936	e869	e812	e1010	39200	10500	39200	9250
22	e2140	e1310	e1090	e1050	e936	e865	e812	e1040	33300	9180	30000	8620
23	e2090	e1300	e1090	e1050	e932	e858	e809	e1070	28700	8260	24400	8090
24	e2040	e1290	e1080	e1040	e929	e858	e809	e1150	25500	7590	20500	7660
25	e1990	e1290	e1080	e1040	e925	e858	e812	e1220	23300	7270	17400	7270
26	e1950	e1270	e1070	e1030	e929	e858	e812	e1430	23900	e6960	15000	6890
27	e1920	e1260	e1070	e1020	e929	e858	e816	e1730	23000	e6850	13100	6600
28	e1880	e1250	e1070	e1020	e922	e855	e816	e2080	19800	e6780	11800	6360
29	e1830	e1240	e1070	e1020	---	e847	e816	e2500	16600	e6810	10800	6140
30	e1790	e1230	e1060	e1020	---	e851	e819	e4380	13900	6810	9960	6000
31	e1750	---	e1060	e1020	---	e855	---	e7450	---	7340	9360	---
TOTAL	81590	42970	34910	32530	27034	26984	24731	42434	1644800	440680	672230	374580
MEAN	2632	1432	1126	1049	965.5	870.5	824.4	1369	54830	14220	21680	12490
MAX	3850	1710	1220	1070	1020	900	851	7450	108000	37800	63200	24400
MIN	1750	1230	1060	1020	922	847	809	819	12600	6780	8790	6000
AC-FT	161800	85230	69240	64520	53620	53520	49050	84170	3262000	874100	1333000	743000
CFSM	0.11	0.06	0.05	0.05	0.04	0.04	0.04	0.06	2.37	0.62	0.94	0.54
IN.	0.13	0.07	0.06	0.05	0.04	0.04	0.04	0.07	2.65	0.71	1.08	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2001, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4507	1756	1067	806.9	682.7	647.9	772.4	34760	44590	14970	18830	16820
MAX	8241	3161	1479	1049	966	870	1711	63160	86470	29580	37940	34320
(WY)	1996	1999	1999	2001	2001	2001	1998	1990	1992	1994	1991	1995
MIN	2571	1122	870	551	398	383	562	1369	20410	6041	10090	7697
(WY)	2000	1997	2000	1997	1997	1997	1997	2001	1999	1999	1994	2000

15388960 PORCUPINE RIVER NEAR INTERNATIONAL BOUNDARY—Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1988 - 2001	
ANNUAL TOTAL	4312431		3445473			
ANNUAL MEAN	11780		9440		11720	
HIGHEST ANNUAL MEAN					16090	1995
LOWEST ANNUAL MEAN					6569	1999
HIGHEST DAILY MEAN	96400	Jun 11	108000	Jun 8	248000	Jun 1 1992
LOWEST DAILY MEAN	a717	Mar 30	b809	Apr 23	c367	Mar 3 1997
ANNUAL SEVEN-DAY MINIMUM	718	Mar 28	811	Apr 20	369	Mar 1 1997
MAXIMUM PEAK FLOW			110000	Jun 8	250000	Jun 1 1992
MAXIMUM PEAK STAGE			40.05	Jun 8	50.76	Jun 1 1992
INSTANTANEOUS LOW FLOW					470	Mar 19 1990
ANNUAL RUNOFF (AC-FT)	8554000		6834000		8490000	
ANNUAL RUNOFF (CFSM)	0.51		0.41		0.51	
ANNUAL RUNOFF (INCHES)	6.94		5.55		6.89	
10 PERCENT EXCEEDS	34100		24400		33400	
50 PERCENT EXCEEDS	1440		1290		1900	
90 PERCENT EXCEEDS	727		847		632	

a From Mar. 30 to Apr.3
b From Apr.23 to 24
c From Mar. 3 to 6, 1997
e Estimated

15453500 YUKON RIVER NEAR STEVENS VILLAGE

LOCATION.--Lat 65°52'32", long 149°43'04", in SE 1/4 SW 1/4 sec. 7, T. 12 N., R. 10 W. (Livengood D-6 quad), Hydrologic Unit 19040404, on right bank, 115 ft upstream from bridge at MP 56.0 on Dalton Highway, 0.5 mi downstream from Woodcamp Creek, 2.5 mi upstream from Ray River, and 21 mi southwest of Stevens Village.

DRAINAGE AREA.--196,300 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder and supplementary water-stage recorder on bridge pier at same site and datum. Datum of gage is 240.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge observed, 950,000 ft^3/s, June 15-16, 1964, "at Rampart" (station 15468000), drainage area, 199,400 mi^2, approximately.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134000	e75000	e50000	e37000	e29000	e23000	e20000	e20000	313000	208000	193000	279000
2	132000	e74000	e50000	e37000	e29000	e23000	e20000	e20000	278000	203000	206000	274000
3	129000	e73000	e49000	e37000	e29000	e23000	e20000	e20000	256000	200000	224000	265000
4	126000	e72000	e49000	e37000	e28000	e23000	e20000	e20000	249000	198000	231000	256000
5	123000	e71000	e48000	e36000	e28000	e23000	e20000	e20000	246000	196000	227000	249000
6	121000	e70000	e48000	e36000	e28000	e22000	e20000	e21000	241000	191000	217000	244000
7	119000	e68000	e47000	e36000	e28000	e22000	e20000	e22000	234000	189000	204000	240000
8	117000	e67000	e47000	e36000	e27000	e22000	e20000	e23000	228000	193000	189000	237000
9	115000	e66000	e46000	e35000	e27000	e22000	e20000	e25000	224000	199000	174000	234000
10	113000	e65000	e46000	e35000	e27000	e22000	e20000	e30000	223000	203000	163000	230000
11	112000	e64000	e45000	e35000	e27000	e22000	e20000	e37000	228000	203000	157000	229000
12	112000	e63000	e45000	e35000	e27000	e21000	e19000	e45000	238000	198000	154000	231000
13	111000	e62000	e44000	e34000	e26000	e21000	e19000	e57000	244000	193000	155000	233000
14	109000	e61000	e44000	e34000	e26000	e21000	e19000	e72000	251000	193000	159000	233000
15	106000	e61000	e43000	e34000	e26000	e21000	e19000	e95000	274000	195000	162000	231000
16	103000	e60000	e43000	e33000	e26000	e21000	e19000	e120000	298000	192000	162000	226000
17	e100000	e59000	e43000	e33000	e26000	e21000	e19000	210000	299000	185000	166000	217000
18	e98000	e58000	e42000	e33000	e25000	e21000	e19000	330000	293000	182000	177000	207000
19	e96000	e58000	e42000	e33000	e25000	e20000	e19000	366000	283000	180000	192000	199000
20	e94000	e57000	e42000	e32000	e25000	e20000	e19000	353000	270000	179000	218000	194000
21	e93000	e56000	e41000	e32000	e25000	e20000	e19000	384000	255000	178000	253000	187000
22	e91000	e56000	e41000	e32000	e25000	e20000	e19000	425000	241000	176000	265000	180000
23	e89000	e55000	e40000	e32000	e24000	e20000	e19000	434000	230000	175000	264000	173000
24	e87000	e54000	e40000	e31000	e24000	e20000	e19000	445000	225000	176000	265000	167000
25	e86000	e53000	e40000	e31000	e24000	e20000	e19000	456000	224000	177000	270000	162000
26	e84000	e53000	e39000	e31000	e24000	e20000	e19000	461000	227000	175000	279000	157000
27	e82000	e52000	e39000	e30000	e24000	e20000	e19000	456000	228000	171000	287000	153000
28	e81000	e52000	e39000	e30000	e23000	e20000	e19000	445000	224000	167000	289000	148000
29	e79000	e51000	e38000	e30000	---	e20000	e20000	429000	219000	164000	289000	145000
30	e78000	e51000	e38000	e30000	---	e20000	e20000	400000	213000	167000	286000	142000
31	e77000	---	e38000	e29000	---	e20000	---	356000	---	181000	282000	---
TOTAL	3197000	1837000	1346000	1036000	732000	654000	583000	6598000	7456000	5787000	6759000	6322000
MEAN	103100	61230	43420	33420	26140	21100	19430	212800	248500	186700	218000	210700
MAX	134000	75000	50000	37000	29000	23000	20000	461000	313000	208000	289000	279000
MIN	77000	51000	38000	29000	23000	20000	19000	20000	213000	164000	154000	142000
AC-FT	6341000	3644000	2670000	2055000	1452000	1297000	1156000	13090000	14790000	11480000	13410000	12540000
CFSM	0.53	0.31	0.22	0.17	0.13	0.11	0.10	1.08	1.27	0.95	1.11	1.07
IN.	0.61	0.35	0.26	0.20	0.14	0.12	0.11	1.25	1.41	1.10	1.28	1.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	99620	50310	36570	29880	25450	22490	22220	206500	339200	232400	200300	164900
MAX	164500	69670	48450	37680	32140	28970	28170	373000	614100	320200	255100	229500
(WY)	2001	1978	1983	1977	1981	1981	1981	1991	1992	1992	2000	2000
MIN	75340	34530	26770	23550	19320	16000	14800	90680	226800	178900	142400	116500
(WY)	1993	1990	1990	1996	1999	1999	1997	1992	1995	1996	1989	1989

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1977 - 2002	
ANNUAL TOTAL	48382000		42307000			
ANNUAL MEAN	132600		115900		119700	
HIGHEST ANNUAL MEAN					144400	1992
LOWEST ANNUAL MEAN					93910	1996
HIGHEST DAILY MEAN	552000	Jun 13	461000	May 26	823000	Jun 11 1992
LOWEST DAILY MEAN	a23000	Mar 29	b19000	Apr 12	c14000	Apr 14 1997
ANNUAL SEVEN-DAY MINIMUM	23000	Mar 29	19000	Apr 12	14000	Apr 14 1997
MAXIMUM PEAK FLOW	554000	Jun 13	466000	May 26	827000	Jun 11 1992
MAXIMUM PEAK STAGE	50.17	Jun 13	46.62	May 26	59.60	Jun 11 1992
ANNUAL RUNOFF (AC-FT)	95970000		83920000		86690000	
ANNUAL RUNOFF (CFSM)	0.68		0.59		0.61	
ANNUAL RUNOFF (INCHES)	9.17		8.02		8.29	
10 PERCENT EXCEEDS	323000		256000		278000	
50 PERCENT EXCEEDS	62000		63000		57000	
90 PERCENT EXCEEDS	23500		20000		22000	

a From Mar. 29 to Apr. 22
b From Apr. 12 to Apr. 28
c From Apr. 14 to 25
e Estimated

15453500 YUKON RIVER NEAR STEVENS VILLAGE—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72, 1978, and 2001 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLE LOC- ATION, CROSS SECTION (FT FM R BK) (72103)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
MAR						
19...	1700	600.0	288	7.1	.0	8.8
19...	1950	925.0	287	--	.0	--
19...	1957	250.0	289	7.2	.0	--
JUN						
04...	1743	395.0	171	8.0	13.4	9.0
04...	1744	775.0	173	8.0	13.4	9.0
04...	1746	1090	172	8.1	13.4	9.1
04...	1748	1375	173	8.1	13.3	9.1
04...	1751	1715	173	8.1	13.3	9.1
24...	1210	350.0	195	8.1	13.2	--
24...	1230	700.0	195	8.1	13.1	12.9
24...	1240	1030	194	8.1	13.1	12.6
24...	1250	1370	195	8.1	13.1	12.7
24...	1300	1700	195	8.1	13.1	12.2
JUL						
18...	1509	300.0	212	8.1	19.4	7.9
18...	1511	680.0	212	8.1	19.3	7.9
18...	1513	1000	212	8.1	19.3	7.9
18...	1514	1300	212	8.1	19.3	7.9
18...	1515	1680	213	8.1	19.3	7.9
30...	1610	1680	231	8.1	18.3	9.1
30...	1612	1300	231	8.1	18.3	9.1
30...	1614	1000	231	8.1	18.3	9.1
30...	1616	680.0	232	8.1	18.3	9.1
30...	1618	300.0	231	8.1	18.4	9.1
AUG						
23...	1553	1700	211	7.9	10.0	11.1
23...	1555	1350	212	8.0	10.0	11.1
23...	1558	1000	212	8.0	10.0	11.1
23...	1600	650.0	212	8.0	10.0	11.1
23...	1602	350.0	211	8.0	10.1	11.1
SEP						
04...	1524	1700	213	7.7	11.3	--
04...	1526	1350	213	7.8	11.3	--
04...	1528	1050	213	7.8	11.3	--
04...	1533	500.0	213	7.9	11.3	9.8
04...	1538	350.0	212	7.9	11.3	9.9

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	QUALITY ASSUR- ANCE DATA INDICA- TOR CODE (99111)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)
MAR													
19...	1930	9	9	1850	--	20600	20	3060	30	297	7.2	-5.0	.0
JUN													
04...	1630	9	9	2040	35.74	253000	20	3055	100	172	8.0	--	13.4
24...	1330	9	9	--	34.15	223000	20	3055	100	195	8.1	--	13.1
JUL													
18...	1400	9	9	1930	31.17	180000	20	3055	30	212	8.1	--	19.3
30...	1510	9	9	1980	30.16	167000	20	3055	30	231	8.1	--	18.5
AUG													
23...	1440	9	7	2040	36.57	263000	20	3055	30	212	7.9	10.0	10.0
SEP													
04...	1450	9	9	2020	35.97	253000	20	3055	30	213	7.8	--	11.3

15453500 YUKON RIVER NEAR STEVENS VILLAGE—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB-ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)
MAR													
19...	7.0	.041	.029	780	8.8	59	130	36.4	9.30	2.42	120	1.05	146
JUN													
04...	88	.281	.210	757	9.0	87	84	24.0	5.73	1.67	62	1.06	76
24...	73	.220	.162	758	12.6	121	99	27.8	7.07	2.12	66	.84	80
JUL													
18...	320	.136	.100	766	7.9	85	100	28.0	7.37	2.42	75	1.38	91
30...	300	.097	.070	777	9.1	95	120	32.4	8.28	2.70	78	1.48	95
AUG													
23...	210	.242	.180	761	11.1	98	100	28.4	7.43	2.28	71	.95	87
SEP													
04...	110	.206	.152	766	9.9	90	110	29.2	8.16	2.09	71	.87	84

Date	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L) (39036)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAR													
19...	.0	120	120	32.6	.57	.1	6.45	178	161	<.002	.103	<.015	E.10
JUN													
04...	.0	62	--	22.4	.84	.15	4.41	128	98	E.002	.025	<.015	.57
24...	.0	66	--	27.5	.49	<.10	5.12	125	111	<.002	.033	<.015	.32
JUL													
18...	.0	74	--	30.5	.53	E.07	5.30	129	120	<.002	.027	<.015	.28
30...	.0	78	--	32.8	1.08	.12	5.73	140	132	<.002	.031	<.015	.23
AUG													
23...	.0	72	--	32.0	1.10	.14	5.10	145	121	<.002	.061	<.015	.57
SEP													
04...	.0	69	--	34.2	.52	E.09	6.20	140	123	<.002	.053	<.015	.32

Date	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	NITRO-GEN, TOTAL, SEDIMNT SUSP, (WEIGHT PERCNT) (62845)	PHOS-PHORUS SEDI-MENT SUSP. PERCENT (30292)	ALUM-INUM SED,SUS PERCENT (30221)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	AN-TIMONY SED. SUSP. (UG/G) (29816)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC SED. SUSP. (UG/G) (29818)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM SED. SUSP. (UG/G) (29820)
MAR													
19...	E.09	.010	<.004	<.007	--	.100	6.5	3	1.8	.16	16	.4	960
JUN													
04...	.24	.37	.007	<.007	.11	.100	6.3	24	1.8	.19	10	.5	960
24...	.20	.20	.005	<.007	<.10	.090	6.5	22	1.4	.17	11	.5	920
JUL													
18...	E.09	.39	E.002	<.007	<.10	.090	7.1	26	2.1	.24	14	.7	710
30...	.11	.35	E.002	<.007	<.10	.100	6.9	19	2.2	.22	14	.6	720
AUG													
23...	.18	.46	.004	<.007	.13	.100	6.5	20	1.5	.22	11	.5	810
SEP													
04...	.17	.26	E.003	<.007	.14	.100	6.7	32	2.0	.22	15	.5	1100

15453500 YUKON RIVER NEAR STEVENS VILLAGE—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM SED. SUSP. (UG/G) (29822)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM SED. SUSP. (UG/G) (29826)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM SED. SUSP. (UG/G) (29829)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT SEDI-MENT SUSP. (UG/G) (35031)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER SED. SUSP. (UG/G) (29832)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON SEDI-MENT SUSP. PERCENT (30269)
MAR 19...	61	2	<.06	9	1.4	E.03	110	<.8	19	.09	56	1.3	4.3
JUN 04...	40	1	<.06	E7	3.3	E.02	97	1.0	15	.11	32	3.3	3.5
24...	40	1	<.06	E6	.5	<.04	91	<.8	16	.10	31	2.3	3.7
JUL 18...	44	2	<.06	12	.4	<.04	150	<.8	20	.09	43	2.2	4.7
30...	45	2	<.06	11	.6	<.04	100	<.8	20	.07	43	1.6	4.6
AUG 23...	38	2	<.06	8	.5	E.02	110	<.8	15	.10	35	2.3	3.9
SEP 04...	44	2	<.06	9	.7	E.02	110	<.8	17	.09	40	2.4	4.0

Date	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD SED. SUSP. (UG/G) (29836)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM SEDI-MENT SUSP. (UG/G) (35050)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MAN-GANESE SED. SUSP. (UG/G) (29839)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY SED. SUSP. (UG/G) (29841)	MOLYB-DENUM SED. SUSP. (UG/G) (29843)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL SED. SUSP. (UG/G) (29845)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM SED. SUSP. (UG/G) (29847)
MAR 19...	E8	20	.16	31	2.7	1900	13.7	.13	4	1.2	68	1.30	1
JUN 04...	75	26	.21	28	2.1	740	6.1	.06	3	.5	48	2.28	1
24...	48	16	.14	28	2.4	750	4.0	.03	2	.8	47	1.72	M
JUL 18...	11	15	<.08	35	3.3	780	2.5	.04	8	1.3	74	.95	M
30...	E7	14	<.08	32	3.2	810	2.0	.57	3	1.2	53	.85	M
AUG 23...	55	13	E.07	34	3.2	730	4.4	.17	2	.6	51	2.02	M
SEP 04...	45	14	<.08	32	3.0	860	3.1	.08	3	.9	62	1.47	1

Date	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER SED. SUSP. (UG/G) (29850)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM SEDI-MENT SUSP. (UG/G) (35040)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	THAL-LIUM SUS SED (UG/G) (49955)	TITA-NIUM SEDI-MENT SUSP. PERCENT (30317)	VANA-DIUM SED. SUSP. (UG/G) (29853)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC SED. SUSP. (UG/G) (29855)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM SEDI-MENT SUSP. (UG/G) (35046)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAR 19...	.6	<.5	<1	300	150	<50	.450	140	<.2	180	4	<50	1.01
JUN 04...	.5	<.5	<1	290	94.1	<50	.430	130	.9	120	6	<50	.58
24...	E.3	<.5	<1	300	105	<50	.440	130	1.0	120	2	<50	.63
JUL 18...	.5	<.5	<1	300	118	<50	.440	130	.7	100	<1	<50	.68
30...	.5	<.5	<1	310	126	<50	.440	130	.7	110	2	<50	.77
AUG 23...	.5	<.5	<1	270	114	<50	.420	140	.7	110	7	<50	.58
SEP 04...	.6	<.5	<1	280	125	<50	.420	140	.6	150	6	<50	.79

Date	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON SED. SUSP. PERCENT (30244)	CARBON, ORGANIC SUS-PENDED, TOTAL PERCENT (50465)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	SEDI-MENT SUSP., FLOW-THROUGH CENTRIF (MG/L) (50279)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR 19...	1.9	<.1	<.1	<.1	3.7	--	<.02	7	8.0	445	86
JUN 04...	7.9	.7	4.4	5.1	2.3	1.5	.29	386	388	265000	63
24...	6.5	.2	2.2	2.5	2.2	1.3	.09	239	223	134000	60
JUL 18...	4.0	5.0	3.6	8.5	2.7	.8	.18	375	381	185000	85
30...	3.4	4.4	4.3	8.7	2.7	.9	.17	408	403	182000	85
AUG 23...	7.3	3.8	5.7	9.4	2.5	1.3	.40	438	468	332000	74
SEP 04...	6.2	.4	2.6	3.0	2.2	1.3	.14	229	236	161000	73

15477730 LIESE CREEK NEAR BIG DELTA

LOCATION.--Lat 64°26′53″, long 144°52′59″, in SW$\frac{1}{4}$ sec.25, T.5 S., R.14 E., (Big Delta B-2 quad), Hydrologic Unit 19040503, on right bank, 1.7 mi upstream from mouth, 1.5 mi east of Teck Cominco Corp, Pogo Mine Camp site, and 34 mi northeast of Big Delta.

DRAINAGE AREA.--1.08 mi^2.

PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2200 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and the period August 19 to September 30 which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.30	e0.09	e0.06	e0.01	e0.01	e0.01	e0.01	e1.3	4.9	0.35	0.54	1.3
2	e0.29	e0.09	e0.05	e0.01	e0.01	e0.01	e0.01	e0.66	1.8	0.51	0.50	1.6
3	e0.30	e0.09	e0.05	e0.01	e0.01	e0.01	e0.01	e0.48	1.0	5.0	0.44	2.1
4	e0.31	e0.08	e0.05	e0.01	e0.01	e0.01	e0.01	e0.34	0.72	3.8	0.43	2.1
5	e0.34	e0.08	e0.04	e0.01	e0.01	e0.01	e0.01	e0.36	0.64	1.7	0.42	2.1
6	e0.48	e0.08	e0.04	e0.01	e0.01	e0.01	e0.01	e0.54	2.2	2.8	0.42	2.5
7	e0.42	e0.08	e0.04	e0.01	e0.01	e0.01	e0.01	e0.96	1.1	1.8	0.44	2.5
8	e0.38	e0.08	e0.03	e0.01	e0.01	e0.01	e0.01	e1.8	0.69	1.3	1.3	1.6
9	e0.36	e0.08	e0.03	e0.01	e0.01	e0.01	e0.01	e2.2	0.53	0.94	3.2	1.5
10	e0.34	e0.08	e0.03	e0.01	e0.01	e0.01	e0.01	e2.2	0.49	0.87	3.0	1.2
11	e0.34	e0.07	e0.03	e0.01	e0.01	e0.01	e0.01	e2.4	4.6	0.75	2.2	1.2
12	e0.32	e0.07	e0.03	e0.01	e0.01	e0.01	e0.01	e2.8	3.6	0.63	1.8	1.1
13	e0.30	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e3.3	2.0	0.60	2.1	1.1
14	e0.28	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e4.0	1.5	0.58	1.9	1.0
15	e0.26	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e3.0	1.1	0.52	1.5	0.91
16	e0.24	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e2.1	0.74	0.46	1.9	0.86
17	e0.23	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e2.2	0.52	0.50	5.8	0.84
18	e0.21	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e2.4	0.42	0.47	5.9	0.82
19	e0.20	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e2.2	0.34	0.44	6.8	0.92
20	e0.18	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e2.0	0.58	0.59	4.2	0.89
21	e0.16	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e1.7	0.87	0.61	3.8	0.88
22	e0.15	e0.07	e0.02	e0.01	e0.01	e0.01	e0.01	e1.4	0.76	0.53	4.2	0.82
23	e0.14	e0.07	e0.01	e0.01	e0.01	e0.01	e0.01	e1.2	0.54	0.43	3.8	0.78
24	e0.13	e0.07	e0.01	e0.01	e0.01	e0.01	e0.01	e0.96	0.41	0.46	3.4	0.71
25	e0.12	e0.06	e0.01	e0.01	e0.01	e0.01	e0.01	e0.80	0.44	0.89	2.8	0.66
26	e0.12	e0.06	e0.01	e0.01	e0.01	e0.01	e0.01	e0.68	0.47	1.0	2.1	0.51
27	e0.11	e0.06	e0.01	e0.01	e0.01	e0.01	e0.02	e0.56	0.44	0.71	1.7	0.46
28	e0.11	e0.06	e0.01	e0.01	e0.01	e0.01	e0.03	e0.52	0.34	0.68	1.6	0.45
29	e0.10	e0.06	e0.01	e0.01	---	e0.01	e0.05	e0.48	0.30	0.71	1.3	0.46
30	e0.10	e0.06	e0.01	e0.01	---	e0.01	e0.33	e0.51	0.30	0.67	1.1	0.46
31	e0.10	---	e0.01	e0.01	---	e0.01	---	e1.3	---	0.56	1.0	---
TOTAL	7.42	2.17	0.77	0.31	0.28	0.31	0.69	47.35	34.34	31.86	71.59	34.33
MEAN	0.24	0.072	0.025	0.010	0.010	0.010	0.023	1.53	1.14	1.03	2.31	1.14
MAX	0.48	0.09	0.06	0.01	0.01	0.01	0.33	4.0	4.9	5.0	6.8	2.5
MIN	0.10	0.06	0.01	0.01	0.01	0.01	0.01	0.34	0.30	0.35	0.42	0.45
MED	0.24	0.07	0.02	0.01	0.01	0.01	0.01	1.3	0.67	0.63	1.9	0.91
AC-FT	15	4.3	1.5	0.6	0.6	0.6	1.4	94	68	63	142	68
CFSM	0.22	0.07	0.02	0.01	0.01	0.01	0.02	1.41	1.06	0.95	2.14	1.06
IN.	0.26	0.07	0.03	0.01	0.01	0.01	0.02	1.63	1.18	1.10	2.47	1.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.22	0.052	0.008	0.003	0.003	0.003	0.022	1.49	1.41	0.92	1.82	1.00
MAX	0.37	0.083	0.025	0.010	0.010	0.010	0.042	1.62	2.31	1.34	2.31	1.43
(WY)	2001	2001	2002	2002	2002	2002	2001	2000	2000	2001	2002	2000
MIN	0.032	0.000	0.000	0.000	0.000	0.000	0.000	1.32	0.79	0.39	0.98	0.43
(WY)	2000	2000	2000	2000	2000	2000	2000	2001	2001	2000	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	160.95		231.42			
ANNUAL MEAN	0.44		0.63		0.58	
HIGHEST ANNUAL MEAN					0.66	2000
LOWEST ANNUAL MEAN					0.45	2001
HIGHEST DAILY MEAN	6.6	May 23	6.8	Aug 19	7.0	May 22 2000
LOWEST DAILY MEAN	a0.00	Jan 1	b0.01	Dec 23	c0.00	Oct 30 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.01	Dec 23	0.00	Oct 30 1999
MAXIMUM PEAK FLOW			9.6	Aug 19	9.6	Aug 13 2000
MAXIMUM PEAK STAGE			20.38	Aug 19	20.39	Aug 13 2000
MAXIMUM PEAK STAGE					d22.8	May 18 2000
ANNUAL RUNOFF (AC-FT)	319		459		422	
ANNUAL RUNOFF (CFSM)	0.41		0.59		0.54	
ANNUAL RUNOFF (INCHES)	5.54		7.97		7.33	
10 PERCENT EXCEEDS	1.1		2.1		1.8	
50 PERCENT EXCEEDS	0.11		0.10		0.08	
90 PERCENT EXCEEDS	0.00		0.01		0.00	

a Jan. 1 to Apr. 21
b Dec. 23 to Apr 26
c Oct. 30, 1999 to May 7, 2000 and Nov. 30, 2000 to Apr. 21, 2001
d Backwater from ice
e Estimated

15477740 GOODPASTER RIVER NEAR BIG DELTA

LOCATION.--Lat 64°27′02″, long 144°56′32″, in SE$\frac{1}{4}$ sec.27, T.5 S., R.14 E., (Big Delta B-2 quad), Hydrologic Unit 19040503, on left bank, 0.2 mi northwest of Pogo Mine Camp site, 7 mi upstream from Central Creek, and 34 mi northeast of Big Delta.

DRAINAGE AREA.--677 mi^2.

PERIOD OF RECORD.--August 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1350 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	367	e170	e92	e68	e52	e46	e38	e500	1420	519	490	1040
2	364	e170	e90	e66	e52	e46	e38	e400	1080	483	454	1070
3	330	e160	e88	e66	e52	e46	e38	e320	879	1600	439	1110
4	354	e160	e86	e66	e52	e44	e38	e280	715	4740	407	1050
5	350	e150	e84	e66	e52	e44	e38	e240	683	1930	385	938
6	476	e150	e82	e66	e52	e44	e38	e220	1010	2120	379	1020
7	727	e140	e80	e66	e50	e44	e38	e260	996	1770	397	1880
8	610	e140	e80	e66	e50	e44	e38	e400	834	1150	503	1720
9	508	e140	e80	e64	e50	e44	e38	e540	666	877	876	1450
10	460	e130	e78	e64	e50	e42	e38	e700	586	842	1160	1350
11	445	e130	e78	e64	e50	e42	e38	e1000	2370	824	1050	1250
12	388	e130	e78	e64	e50	e42	e38	e1300	2860	714	905	1140
13	298	e130	e76	e64	e50	e42	e38	e1600	1640	657	852	1040
14	236	e120	e74	e64	e50	e42	e38	e2000	1320	613	856	973
15	e200	e120	e74	e62	e50	e42	e38	e2200	1020	563	754	918
16	e230	e120	e72	e62	e50	e40	e38	1990	778	519	807	860
17	e240	e120	e72	e62	e50	e40	e38	1890	636	514	3720	825
18	e230	e120	e72	e60	e50	e40	e38	2210	536	496	4950	795
19	e220	e120	e70	e60	e50	e40	e40	3100	465	466	4830	782
20	e210	e120	e70	e60	e50	e38	e40	3490	562	581	3610	762
21	e210	e110	e70	e58	e50	e38	e40	4360	1240	988	2440	729
22	e200	e110	e70	e58	e50	e38	e40	3570	1250	731	2620	682
23	e190	e110	e70	e56	e50	e38	e40	2950	955	593	2260	657
24	e190	e110	e68	e56	e48	e38	e40	2360	702	529	2030	634
25	e180	e110	e68	e56	e48	e38	e42	1890	618	659	1800	622
26	e180	e100	e68	e54	e48	e38	e46	1670	589	1030	1620	604
27	e180	e100	e68	e54	e48	e38	e70	1520	517	831	1420	628
28	e180	e100	e68	e54	e46	e38	e100	916	464	741	1240	643
29	e170	e98	e68	e54	---	e38	e150	643	424	692	1110	611
30	e170	e94	e68	e52	---	e38	e250	559	429	604	1070	595
31	e170	---	e68	e52	---	e38	---	1060	---	544	1020	---
TOTAL	9263	3782	2330	1884	1400	1270	1582	46138	28244	29920	46454	28378
MEAN	298.8	126.1	75.16	60.77	50.00	40.97	52.73	1488	941.5	965.2	1499	945.9
MAX	727	170	92	68	52	46	250	4360	2860	4740	4950	1880
MIN	170	94	68	52	46	38	38	220	424	466	379	595
AC-FT	18370	7500	4620	3740	2780	2520	3140	91510	56020	59350	92140	56290
CFSM	0.44	0.19	0.11	0.09	0.07	0.06	0.08	2.20	1.39	1.43	2.21	1.40
IN.	0.51	0.21	0.13	0.10	0.08	0.07	0.09	2.54	1.55	1.64	2.55	1.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	234.1	109.6	76.90	56.05	44.22	39.91	97.65	961.7	981.4	781.1	1069	654.2
MAX	374	143	109	90.6	82.2	76.4	155	1488	1993	1092	1651	985
(WY)	2001	2001	2001	2001	2001	2001	1998	2002	2000	2001	2000	2000
MIN	149	90.1	57.5	28.9	13.6	10.5	52.7	635	468	419	590	421
(WY)	2000	1999	1999	1999	1999	1999	2002	2001	1998	1999	1999	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL TOTAL	151122		200645			
ANNUAL MEAN	414.0		549.7		435.0	
HIGHEST ANNUAL MEAN					595	2000
LOWEST ANNUAL MEAN					272	1999
HIGHEST DAILY MEAN	3600	Jul 30	4950	Aug 18	7500	Aug 14 2000
LOWEST DAILY MEAN	a68	Dec 24	b38	Mar 20	c10	Mar 8 1999
ANNUAL SEVEN-DAY MINIMUM	68	Dec 24	38	Mar 20	10	Mar 8 1999
MAXIMUM PEAK FLOW			6470	Jul 4	10100	Aug 14 2000
MAXIMUM PEAK STAGE			16.70	Jul 4	19.49	Aug 14 2000
ANNUAL RUNOFF (AC-FT)	299800		398000		315200	
ANNUAL RUNOFF (CFSM)	0.61		0.81		0.64	
ANNUAL RUNOFF (INCHES)	8.30		11.03		8.73	
10 PERCENT EXCEEDS	929		1430		1040	
50 PERCENT EXCEEDS	180		170		150	
90 PERCENT EXCEEDS	74		40		36	

\# See Period of Record; partial years used in monthly statistics
a From Dec. 24 to Dec. 31
b From Mar. 20 to Apr. 18
c From Mar. 8 to 24, 1999
e Estimated

15477761 UPPER WEST CREEK NEAR BIG DELTA

LOCATION.--Lat 64°25'01", long 144°50'55", in SW$\frac{1}{4}$ sec.6, T.6 S., R.15 E., (Big Delta B-2 quad), Hydrologic Unit 19040503, on right bank, 5.1 mi upstream from mouth, 3.4 mi southeast of Pogo Mine Camp site, and 31 mi northeast of Big Delta.

DRAINAGE AREA.--1.64 mi^2.

PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,900 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.83	e0.54	e0.42	e0.28	e0.24	e0.20	e0.18	e1.0	1.2	0.86	1.1	2.1
2	0.83	e0.54	e0.40	e0.28	e0.22	e0.20	e0.18	e0.50	0.78	0.89	1.1	2.1
3	0.82	e0.52	e0.40	e0.28	e0.22	e0.20	e0.18	e0.40	0.71	1.3	1.0	2.1
4	0.82	e0.52	e0.38	e0.28	e0.22	e0.20	e0.18	e0.30	0.68	1.1	1.0	2.1
5	0.82	e0.52	e0.38	e0.28	e0.22	e0.20	e0.18	e0.30	0.68	1.0	1.0	2.1
6	0.92	e0.52	e0.36	e0.28	e0.22	e0.18	e0.18	e0.40	0.71	1.1	1.0	2.4
7	0.88	e0.50	e0.36	e0.28	e0.22	e0.18	e0.18	e0.60	0.71	1.0	1.0	2.5
8	0.86	e0.50	e0.34	e0.28	e0.22	e0.18	e0.18	e1.0	0.69	0.99	1.2	2.4
9	0.84	e0.50	e0.34	e0.28	e0.22	e0.18	e0.18	e2.0	0.67	0.96	1.3	2.4
10	0.83	e0.50	e0.34	e0.28	e0.20	e0.18	e0.18	e2.0	0.73	0.96	1.4	2.3
11	0.82	e0.50	e0.32	e0.28	e0.20	e0.18	e0.18	e2.0	1.8	0.96	1.3	2.2
12	0.80	e0.50	e0.32	e0.28	e0.20	e0.18	e0.18	e2.4	1.3	0.94	1.3	2.1
13	0.79	e0.50	e0.32	e0.28	e0.20	e0.18	e0.18	e2.8	0.98	0.95	1.3	2.1
14	e0.76	e0.50	e0.32	e0.28	e0.20	e0.18	e0.18	e3.6	0.94	0.94	1.2	2.1
15	e0.76	e0.50	e0.30	e0.28	e0.20	e0.18	e0.18	e2.3	e0.87	0.94	1.2	2.1
16	e0.74	e0.48	e0.30	e0.28	e0.20	e0.18	e0.18	1.7	e0.84	0.95	1.2	2.0
17	e0.74	e0.48	e0.30	e0.28	e0.20	e0.18	e0.18	1.8	e0.82	0.96	1.9	2.0
18	e0.72	e0.48	e0.30	e0.28	e0.20	e0.18	e0.18	2.1	e0.81	0.96	2.3	2.0
19	e0.72	e0.48	e0.30	e0.28	e0.20	e0.18	e0.18	1.9	e0.80	0.98	2.8	2.1
20	e0.70	e0.48	e0.30	e0.28	e0.20	e0.18	e0.18	1.7	e1.1	1.1	2.2	2.1
21	e0.70	e0.48	e0.30	e0.28	e0.20	e0.18	e0.18	1.4	e1.1	1.0	1.8	2.0
22	e0.68	e0.48	e0.29	e0.26	e0.20	e0.18	e0.18	1.0	e1.0	1.0	1.8	2.0
23	e0.66	e0.48	e0.28	e0.26	e0.20	e0.18	e0.18	0.86	e0.90	1.0	1.9	1.9
24	e0.64	e0.46	e0.28	e0.26	e0.20	e0.18	e0.18	0.72	e0.86	1.1	2.1	1.9
25	e0.62	e0.46	e0.28	e0.26	e0.20	e0.18	e0.18	0.61	e0.94	1.4	2.1	1.9
26	e0.62	e0.46	e0.28	e0.26	e0.20	e0.18	e0.20	0.51	0.83	1.2	2.2	1.8
27	e0.60	e0.44	e0.28	e0.26	e0.20	e0.18	e0.22	0.44	0.81	1.1	2.2	1.7
28	e0.58	e0.44	e0.28	e0.24	e0.20	e0.18	e0.26	0.41	0.79	1.1	2.1	1.7
29	e0.56	e0.42	e0.28	e0.24	---	e0.18	e0.40	0.41	0.79	1.1	2.1	1.7
30	e0.56	e0.42	e0.28	e0.24	---	e0.18	e0.80	0.42	0.83	1.1	2.1	1.7
31	e0.54	---	e0.28	e0.24	---	e0.18	---	0.70	---	1.1	2.1	---
TOTAL	22.76	14.60	9.91	8.40	5.80	5.68	6.38	38.28	26.67	32.04	50.3	61.6
MEAN	0.734	0.487	0.320	0.271	0.207	0.183	0.213	1.235	0.889	1.034	1.623	2.053
MAX	0.92	0.54	0.42	0.28	0.24	0.20	0.80	3.6	1.8	1.4	2.8	2.5
MIN	0.54	0.42	0.28	0.24	0.20	0.18	0.18	0.30	0.67	0.86	1.0	1.7
MED	0.74	0.49	0.30	0.28	0.20	0.18	0.18	1.0	0.82	1.0	1.4	2.1
AC-FT	45	29	20	17	12	11	13	76	53	64	100	122
CFSM	0.45	0.30	0.19	0.17	0.13	0.11	0.13	0.75	0.54	0.63	0.99	1.25
IN.	0.52	0.33	0.22	0.19	0.13	0.13	0.14	0.87	0.60	0.73	1.14	1.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.068	0.740	0.450	0.332	0.258	0.225	0.256	0.912	1.039	1.155	1.954	2.043
MAX	1.92	1.33	0.69	0.44	0.32	0.26	0.30	1.23	1.67	1.45	2.83	3.06
(WY)	2001	2001	2001	2001	2001	2001	2001	2002	2000	2000	2000	2000
MIN	0.55	0.41	0.32	0.27	0.21	0.18	0.21	0.50	0.56	0.98	1.41	1.02
(WY)	2000	2000	2002	2002	2002	2002	2002	2001	2001	2001	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	223.88		282.42			
ANNUAL MEAN	0.613		0.774		0.872	
HIGHEST ANNUAL MEAN					1.03	2000
LOWEST ANNUAL MEAN					0.77	2002
HIGHEST DAILY MEAN	a1.6	Jul 29	3.6	May 14	4.6	Aug 30 2000
LOWEST DAILY MEAN	b0.24	Mar 24	c0.18	Mar 6	c0.18	Mar 6 2002
ANNUAL SEVEN-DAY MINIMUM	0.24	Mar 24	0.18	Mar 6	0.18	Mar 6 2002
MAXIMUM PEAK FLOW			4.6	May 14	5.0	Aug 30 2000
MAXIMUM PEAK STAGE			d20.93	May 14	20.98	Aug 30 2000
ANNUAL RUNOFF (AC-FT)	444		560		632	
ANNUAL RUNOFF (CFSM)	0.37		0.47		0.53	
ANNUAL RUNOFF (INCHES)	5.08		6.41		7.23	
10 PERCENT EXCEEDS	1.2		2.0		1.9	
50 PERCENT EXCEEDS	0.48		0.50		0.53	
90 PERCENT EXCEEDS	0.26		0.18		0.23	

a From Jul. 29 to Aug. 1
b From Mar. 24 to Apr. 14
c From Mar. 6 to Apr. 25
d From floodmarks
e Estimated

15477768 SONORA CREEK ABOVE TRIBUTARY NEAR BIG DELTA

LOCATION.--Lat 64°23′22″, long 144°46′40″, in SW$\frac{1}{4}$ sec.16, T.6 S., R.15 E. (Big Delta B-2 quad), Hydrologic Unit 19040503, on right bank, 2.5 miles upstream from mouth, 6.3 miles southeast of Pogo Mine Camp site, and 35 miles northeast of Big Delta.

DRAINAGE AREA.--6.05 mi^2.

PERIOD OF RECORD.--May, 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1650 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.0	1.4	1.1	1.2	1.1	1.1	9.0	7.4	1.7	2.6	e7.2
2	3.0	2.0	1.4	1.1	1.2	1.1	1.1	4.0	4.3	1.9	2.6	e7.4
3	2.8	2.0	1.4	1.1	1.2	1.1	1.1	2.5	3.2	7.9	2.4	e7.8
4	3.1	2.0	1.3	1.1	1.1	1.2	1.1	2.0	2.7	9.6	2.4	e7.4
5	3.1	2.0	1.3	1.1	1.2	1.2	1.1	2.0	2.5	5.1	2.4	e7.2
6	4.3	2.0	1.3	1.1	1.2	1.2	1.1	2.6	2.6	6.1	2.4	e8.0
7	4.1	1.9	1.3	1.1	1.2	1.2	1.0	4.0	2.9	4.2	2.5	e11
8	3.9	1.9	1.3	1.1	1.2	1.2	1.0	9.2	2.4	3.4	3.5	e10
9	3.7	1.7	1.3	1.1	1.2	1.2	1.0	17	2.1	2.9	6.2	e9.4
10	3.6	1.6	1.2	1.1	1.1	1.2	1.0	17	2.6	2.8	5.8	e8.8
11	3.5	1.6	1.2	1.1	1.1	1.2	1.0	17	9.4	2.6	4.9	e8.4
12	2.8	1.6	1.2	1.1	1.1	1.2	1.0	20	6.6	2.5	e4.4	e8.0
13	2.3	1.6	1.1	1.1	1.2	1.2	1.0	23	4.7	2.4	e4.3	e7.6
14	e2.3	1.6	1.1	1.1	1.1	1.2	0.98	30	4.6	2.3	e3.9	e7.4
15	2.6	1.6	1.2	1.1	1.1	1.2	0.99	26	3.8	2.2	e3.7	e7.2
16	3.0	1.6	1.1	1.1	1.2	1.1	0.99	19	2.8	2.2	e4.2	e7.0
17	3.1	1.6	1.1	1.1	1.2	1.1	0.98	19	2.4	2.4	e22	e7.0
18	e3.0	1.6	1.1	1.1	1.2	1.1	0.95	20	2.1	2.8	e24	e7.4
19	2.7	1.6	1.1	1.1	1.2	1.1	0.95	18	2.1	2.5	e32	e7.8
20	2.6	1.6	1.1	1.1	1.2	1.1	0.94	13	2.9	3.4	e15	e8.0
21	2.5	1.6	1.0	1.1	1.2	1.1	0.95	10	2.9	3.8	e11	e7.8
22	2.6	1.6	1.0	1.2	1.2	1.1	0.95	8.3	2.7	3.0	e12	e7.4
23	2.4	1.5	1.0	1.2	1.2	1.1	0.95	7.0	2.3	2.6	e10	e7.0
24	2.4	1.6	1.1	1.2	1.2	1.1	0.95	6.0	2.1	2.7	e9.2	e6.6
25	2.3	1.5	1.0	1.2	1.1	1.1	0.95	5.2	2.1	6.6	e8.6	6.4
26	2.3	1.5	1.0	1.2	1.1	1.1	0.94	4.7	2.1	5.4	e8.2	6.4
27	2.3	1.5	0.99	1.2	1.1	1.1	0.95	4.1	2.0	3.9	e7.8	e6.3
28	2.2	1.5	1.0	1.2	1.1	1.1	0.95	3.5	1.8	3.5	e7.6	e6.2
29	2.1	1.4	1.1	1.1	---	1.1	1.2	3.1	1.7	3.2	e7.4	e6.2
30	2.1	1.4	1.1	1.1	---	1.1	7.7	2.8	1.6	3.0	e7.2	e6.3
31	2.1	---	1.1	1.1	---	1.1	---	3.7	---	2.8	e7.0	---
TOTAL	87.9	50.2	35.89	34.8	32.6	35.3	36.87	332.7	95.4	111.4	247.2	226.6
MEAN	2.84	1.67	1.16	1.12	1.16	1.14	1.23	10.7	3.18	3.59	7.97	7.55
MAX	4.3	2.0	1.4	1.2	1.2	1.2	7.7	30	9.4	9.6	32	11
MIN	2.1	1.4	0.99	1.1	1.1	1.1	0.94	2.0	1.6	1.7	2.4	6.2
MED	2.7	1.6	1.1	1.1	1.2	1.1	1.0	8.3	2.6	2.9	6.2	7.4
AC-FT	174	100	71	69	65	70	73	660	189	221	490	449
CFSM	0.47	0.28	0.19	0.19	0.19	0.19	0.20	1.77	0.53	0.59	1.32	1.25
IN.	0.54	0.31	0.22	0.21	0.20	0.22	0.23	2.05	0.59	0.68	1.52	1.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.43	2.78	1.89	1.58	1.42	1.31	1.63	7.99	3.32	3.59	6.87	6.88
MAX	6.03	3.89	2.63	2.03	1.68	1.49	2.03	10.7	3.95	4.58	7.97	9.42
(WY)	2001	2001	2001	2001	2001	2001	2001	2002	2000	2001	2002	2000
MIN	2.84	1.67	1.16	1.12	1.16	1.14	1.23	4.30	2.84	2.58	4.79	3.68
(WY)	2002	2002	2002	2002	2002	2002	2002	2001	2001	2000	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002#	
ANNUAL TOTAL	1010.19		1326.86			
ANNUAL MEAN	2.77		3.64		3.49	
HIGHEST ANNUAL MEAN					3.64	2002
LOWEST ANNUAL MEAN					3.35	2001
HIGHEST DAILY MEAN	12	May 23	e32	Aug 19	e32	Aug 19 2002
LOWEST DAILY MEAN	0.99	Dec 27	a0.94	Apr 20	0.94	Apr 20 2002
ANNUAL SEVEN-DAY MINIMUM	1.0	Dec 21	0.95	Apr 20	0.95	Apr 20 2002
MAXIMUM PEAK FLOW			b49	May 14	b49	May 14 2002
MAXIMUM PEAK STAGE			b21.56	May 14	b21.56	May 14 2002
INSTANTANEOUS LOW FLOW			0.86	Apr 24	c0.58	Mar 21 2000
ANNUAL RUNOFF (AC-FT)	2000		2630		2530	
ANNUAL RUNOFF (CFSM)	0.46		0.60		0.58	
ANNUAL RUNOFF (INCHES)	6.21		8.16		7.84	
10 PERCENT EXCEEDS	4.7		7.9		6.6	
50 PERCENT EXCEEDS	2.3		2.0		2.5	
90 PERCENT EXCEEDS	1.4		1.1		1.1	

\# See Period of Record; partial years used in monthly statistics
a Apr. 20 and 26
b May have been higher during period of missing record, Aug. 19,2002
c Minimum observed outside Period of Record, result of discharge measurement
e Estimated

15477770 SONORA CREEK NEAR BIG DELTA

LOCATION.--Lat 64°22′40″, long 144°48′41″, in SE$\frac{1}{4}$ sec.20, T.6 S., R.15 E. (Big Delta B-2 quad), Hydrologic Unit 19040503, on left bank, 1.2 mi upstream from mouth, 6.5 mi southeast of Pogo Mine Camp site, and 34 mi northeast of Big Delta.

DRAINAGE AREA.--10.5 mi^2.

PERIOD OF RECORD.--August 1997 to current year.

REVISED RECORDS.--WDR AK-00-1: 1998 (M). WDR AK-01-1: 2000.

GAGE.--Water-stage recorder. Elevation of gage is 1450 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	e3.3	e2.2	e1.4	e1.5	e1.5	e1.4	e12	15	1.8	3.1	e8.8
2	4.5	e3.2	e2.1	e1.4	e1.5	e1.5	e1.4	e7.0	9.0	2.0	3.0	e9.2
3	5.0	e3.2	e2.1	e1.4	e1.5	e1.5	e1.4	e5.0	6.0	11	2.8	e9.6
4	5.0	e3.1	e2.0	e1.4	e1.5	e1.5	e1.4	e3.0	4.7	15	2.8	e9.0
5	7.5	e3.0	e2.0	e1.4	e1.5	e1.5	e1.4	e3.0	4.3	7.5	2.8	e8.8
6	7.3	e3.0	e2.0	e1.4	e1.5	e1.5	e1.4	e4.0	4.3	8.7	2.8	e10
7	6.8	e2.8	e2.0	e1.4	e1.5	e1.5	e1.4	e7.0	4.4	5.6	3.0	e15
8	6.3	e2.7	e1.9	e1.4	e1.5	e1.5	e1.4	e14	3.7	4.1	4.6	e14
9	5.9	e2.6	e1.9	e1.4	e1.5	e1.5	e1.4	e19	3.1	3.4	9.4	e13
10	5.7	e2.6	e1.9	e1.4	e1.5	e1.5	e1.4	e20	4.0	3.0	9.2	e12
11	4.4	e2.5	e1.8	e1.4	e1.5	e1.5	e1.4	e19	19	2.7	7.4	e11
12	3.4	e2.5	e1.8	e1.4	e1.5	e1.5	e1.4	e25	13	2.6	6.3	e10
13	3.8	e2.5	e1.8	e1.4	e1.5	e1.5	e1.3	e30	8.9	2.5	6.1	e9.8
14	e4.0	e2.4	e1.8	e1.4	e1.5	e1.5	e1.3	e40	7.8	2.3	5.5	e9.4
15	e4.4	e2.4	e1.7	e1.4	e1.5	e1.5	e1.3	e33	5.7	2.2	5.0	e9.0
16	e4.8	e2.4	e1.7	e1.4	e1.5	e1.4	e1.3	e31	3.8	2.1	6.0	e8.8
17	e4.8	e2.4	e1.7	e1.4	e1.5	e1.4	e1.3	33	3.1	2.4	27	e8.6
18	e4.6	e2.4	e1.6	e1.4	e1.5	e1.4	e1.3	32	2.6	2.8	e30	e9.0
19	e4.4	e2.4	e1.6	e1.4	e1.5	e1.4	e1.3	25	2.5	2.5	e43	e9.6
20	e4.2	e2.4	e1.6	e1.4	e1.5	e1.4	e1.3	14	3.5	3.7	e23	e10
21	e4.1	e2.4	e1.5	e1.4	e1.5	e1.4	e1.3	9.5	3.7	4.4	e15	e10
22	e4.0	e2.4	e1.5	e1.5	e1.5	e1.4	e1.3	10	3.2	3.3	e16	e9.6
23	e3.9	e2.3	e1.4	e1.5	e1.5	e1.4	e1.3	5.9	2.7	2.8	e14	e9.2
24	e3.9	e2.3	e1.4	e1.5	e1.5	e1.4	e1.3	4.9	2.4	2.9	e12	e9.0
25	e3.8	e2.3	e1.4	e1.5	e1.5	e1.4	e1.3	6.7	2.4	8.0	e10	e8.9
26	e3.7	e2.3	e1.4	e1.5	e1.5	e1.4	e1.3	7.4	2.3	7.0	e9.8	8.6
27	e3.6	e2.3	e1.4	e1.5	e1.5	e1.4	e1.3	6.6	2.1	4.8	e9.4	8.5
28	e3.6	e2.2	e1.4	e1.5	e1.5	e1.4	e1.4	5.4	1.9	4.3	e9.0	8.4
29	e3.5	e2.2	e1.4	e1.5	---	e1.4	e2.5	4.8	1.8	4.0	e9.0	8.4
30	e3.4	e2.2	e1.4	e1.5	---	e1.4	e10	4.5	1.7	3.6	e8.8	8.6
31	e3.3	---	e1.4	e1.5	---	e1.4	---	6.2	---	3.3	e8.6	---
TOTAL	141.6	76.7	52.8	44.4	42.0	44.9	50.2	447.9	152.6	136.3	324.4	293.8
MEAN	4.57	2.56	1.70	1.43	1.50	1.45	1.67	14.4	5.09	4.40	10.5	9.79
MAX	7.5	3.3	2.2	1.5	1.5	1.5	10	40	19	15	43	15
MIN	3.3	2.2	1.4	1.4	1.5	1.4	1.3	3.0	1.7	1.8	2.8	8.4
AC-FT	281	152	105	88	83	89	100	888	303	270	643	583
CFSM	0.44	0.24	0.16	0.14	0.14	0.14	0.16	1.38	0.48	0.42	1.00	0.93
IN.	0.50	0.27	0.19	0.16	0.15	0.16	0.18	1.59	0.54	0.48	1.15	1.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.96	2.23	1.43	1.09	0.96	0.87	1.62	10.2	4.94	4.69	8.36	7.77
MAX	8.88	4.26	2.37	1.70	1.50	1.45	2.58	16.4	7.65	6.83	16.0	18.5
(WY)	2001	2001	2001	2001	2002	2002	2001	2000	2000	2001	2000	2000
MIN	1.63	1.31	0.98	0.71	0.56	0.45	0.91	4.27	1.74	3.11	4.29	2.69
(WY)	2000	2000	1998	1998	1998	1998	1998	1998	1998	1998	1998	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002#	
ANNUAL TOTAL	1458.7		1807.6			
ANNUAL MEAN	4.00		4.95		4.09	
HIGHEST ANNUAL MEAN					5.91	2000
LOWEST ANNUAL MEAN					2.07	1998
HIGHEST DAILY MEAN	22	May 23	e43	Aug 19	e49	May 24 2000
LOWEST DAILY MEAN	a1.2	Mar 25	b1.3	Apr 13	0.40	Mar 7 1998
ANNUAL SEVEN-DAY MINIMUM	1.2	Mar 25	1.3	Apr 13	0.40	Mar 7 1998
MAXIMUM PEAK FLOW			c		e61	May 22 2000
MAXIMUM PEAK STAGE			d		f33.40	May 12 2000
ANNUAL RUNOFF (AC-FT)	2890		3590		2960	
ANNUAL RUNOFF (CFSM)	0.38		0.47		0.39	
ANNUAL RUNOFF (INCHES)	5.17		6.40		5.29	
10 PERCENT EXCEEDS	7.5		10		9.0	
50 PERCENT EXCEEDS	3.2		2.5		2.2	
90 PERCENT EXCEEDS	1.3		1.4		0.60	

\# See Period of Record; partial years used in monthly statistics
a From Mar. 25 to Apr. 13
b From Apr. 13 to 27
c Not determined see highest daily mean
d Not determined
e Estimated
f Backwater from snow and ice

15477790 CENTRAL CREEK NEAR BIG DELTA

LOCATION.--Lat 64°22′37″, long 144°56′35″, in SE$\frac{1}{4}$ sec. 22, T. 6 S., R. 14 E. (Big Delta B-2 quad), Hydrologic Unit 19040503, on right bank, 0.5 mi upstream from mouth, 5 mi south of Pogo Mine Camp site, and 31 mi northeast of Big Delta.

DRAINAGE AREA.--115 mi^2.

PERIOD OF RECORD.--August 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1250 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	e17	e4.0	e0.50	e0.40	e0.20	e0.10	e140	246	28	42	104
2	41	e16	e3.6	e0.50	e0.40	e0.20	e0.10	e70	256	27	38	112
3	33	e16	e3.0	e0.50	e0.40	e0.20	e0.10	e60	132	222	34	114
4	43	e16	e2.6	e0.50	e0.40	e0.20	e0.10	e50	89	742	32	108
5	40	e15	e2.2	e0.50	e0.40	e0.20	e0.10	e45	81	235	30	101
6	68	e15	e2.2	e0.50	e0.40	e0.10	e0.10	46	124	356	30	115
7	119	e15	e1.8	e0.50	e0.40	e0.10	e0.10	49	152	229	31	240
8	98	e15	e1.6	e0.50	e0.30	e0.10	e0.10	63	95	132	45	205
9	80	e15	e1.6	e0.50	e0.30	e0.10	e0.10	123	71	92	154	179
10	69	e14	e1.4	e0.50	e0.30	e0.10	e0.10	214	113	79	204	152
11	64	e14	e1.4	e0.50	e0.30	e0.10	e0.10	224	671	85	158	132
12	49	e14	e1.2	e0.50	e0.30	e0.10	e0.10	255	509	73	119	118
13	36	e14	e1.2	e0.50	e0.30	e0.10	e0.10	322	237	118	104	108
14	20	e14	e1.0	e0.50	e0.30	e0.10	e0.10	421	185	89	101	98
15	24	e13	e1.0	e0.50	e0.30	e0.10	e0.10	536	134	67	86	93
16	e27	e13	e0.90	e0.50	e0.30	e0.10	e0.10	427	90	55	98	88
17	e29	e13	e0.90	e0.50	e0.30	e0.10	e0.10	548	67	53	992	92
18	e28	e13	e0.80	e0.50	e0.30	e0.10	e0.10	689	52	61	942	91
19	e27	e13	e0.80	e0.40	e0.30	e0.10	e0.10	772	43	51	954	100
20	e26	e12	e0.80	e0.40	e0.20	e0.10	e0.10	768	57	61	482	107
21	e25	e12	e0.70	e0.40	e0.20	e0.10	e0.10	717	118	112	262	103
22	e24	e11	e0.70	e0.40	e0.20	e0.10	e0.10	481	118	76	258	97
23	e22	e11	e0.60	e0.40	e0.20	e0.10	e0.10	329	83	58	207	92
24	e21	e10	e0.60	e0.40	e0.20	e0.10	e0.10	229	60	48	170	88
25	e21	e9.0	e0.60	e0.40	e0.20	e0.10	e0.10	171	52	104	159	86
26	e20	e8.0	e0.60	e0.40	e0.20	e0.10	e0.50	138	55	149	141	84
27	e19	e7.0	e0.60	e0.40	e0.20	e0.10	e2.0	111	47	98	125	93
28	e19	e6.0	e0.60	e0.40	e0.20	e0.10	e10	78	39	78	113	99
29	e18	e5.6	e0.50	e0.40	---	e0.10	e30	61	33	72	108	98
30	e18	e4.6	e0.50	e0.40	---	e0.10	e70	52	30	60	105	101
31	e17	---	e0.50	e0.40	---	e0.10	---	72	---	50	101	---
TOTAL	1187	371.2	40.50	14.20	8.20	3.60	115.00	8261	4039	3760	6425	3398
MEAN	38.29	12.37	1.306	0.458	0.293	0.116	3.833	266.5	134.6	121.3	207.3	113.3
MAX	119	17	4.0	0.50	0.40	0.20	70	772	671	742	992	240
MIN	17	4.6	0.50	0.40	0.20	0.10	0.10	45	30	27	30	84
AC-FT	2350	736	80	28	16	7.1	228	16390	8010	7460	12740	6740
CFSM	0.33	0.11	0.01	0.00	0.00	0.00	0.03	2.32	1.17	1.05	1.80	0.98
IN.	0.38	0.12	0.01	0.00	0.00	0.00	0.04	2.67	1.31	1.22	2.08	1.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.89	11.76	4.594	2.728	1.989	1.609	8.863	163.5	97.77	82.62	129.3	79.87
MAX	46.4	30.9	16.7	11.3	8.74	7.10	12.4	266	170	128	237	170
(WY)	2001	2001	2001	2001	2001	2001	2001	2002	2000	2001	2000	2000
MIN	13.8	4.71	0.75	0.026	0.000	0.000	3.83	81.6	26.3	47.8	70.1	37.2
(WY)	2000	1999	1999	1999	1999	1999	2002	1998	1998	1999	1998	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002#	
ANNUAL TOTAL	17358.90		27622.70			
ANNUAL MEAN	47.56		75.68		52.34	
HIGHEST ANNUAL MEAN					75.7	2002
LOWEST ANNUAL MEAN					26.8	1998
HIGHEST DAILY MEAN	382	Jul 30	992	Aug 17	992	Aug 17 2002
LOWEST DAILY MEAN	a0.50	Dec 29	b0.10	Mar 6	c0.00	Jan 8 1999
ANNUAL SEVEN-DAY MINIMUM	0.56	Dec 25	0.10	Mar 6	0.00	Jan 8 1999
MAXIMUM PEAK FLOW			d1700	Aug 17	d1700	Aug 17 2002
MAXIMUM PEAK STAGE			45.72	Aug 17	45.72	Aug 17 2002
ANNUAL RUNOFF (AC-FT)	34430		54790		37920	
ANNUAL RUNOFF (CFSM)	0.41		0.66		0.46	
ANNUAL RUNOFF (INCHES)	5.62		8.94		6.18	
10 PERCENT EXCEEDS	119		181		131	
50 PERCENT EXCEEDS	21		19		18	
90 PERCENT EXCEEDS	6.2		0.10		0.10	

\# See Period of Record; partial years used in monthly statistics
a From Dec. 29 to 31
b From Mar. 6 to Apr. 25
c From Jan. 8 to Apr.17, 1999 and Feb. 18 to Apr. 17, 2000
d From rating extended above 395 ft^3/s
e Estimated

15484000 SALCHA RIVER NEAR SALCHAKET

LOCATION.--Lat 64°28′22″, long 146°55′26″, in NE1/4 sec. 22, T. 5 S., R. 4 E. (Big Delta B-6 quad), Fairbanks North Star Borough, Hydrologic Unit 19040505, on right bank 0.2 mi upstream from bridge on Richardson Highway, 0.5 mi east of Sno-Shu Inn, 2 mi upstream from mouth, and 6 mi southeast of Salchaket.

DRAINAGE AREA.--2,170 mi^2, approximately.

PERIOD OF RECORD.--July 1909 to August 1910, published as "at mouth" (no winter records), October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 631.85 ft above sea level. Prior to August 10, 1910, nonrecording gage at site 1.5 mi downstream at different datum. October 1, 1948, to April 24, 1953, nonrecording gage, and April 25, 1953 to October 16, 1967, water-stage recorder at site 800 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 16	1500	10500	11.50	July 7	0800	10500	11.52
May 22	0330	14000	12.72	Aug 19	0500	27300*	16.40*
July 4	2100	11800	11.99				

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1150	e530	e360	e240	e210	e150	e140	e1100	1880	1320	1900	3700
2	1140	e520	e350	e240	e200	e150	e140	e3400	2530	1260	1700	3600
3	1120	e510	e340	e230	e200	e150	e140	e5100	3660	1690	1560	3820
4	1100	e510	e320	e230	e200	e150	e140	e5700	3030	9510	1460	3790
5	1100	e500	e310	e230	e190	e150	e140	e4200	2440	9480	1380	3580
6	1150	e500	e300	e230	e190	e150	e140	e3400	2080	7970	1320	3490
7	1310	e500	e300	e230	e190	e150	e140	e2700	2090	10100	e1280	e4090
8	1560	e490	e300	e230	e190	e150	e140	e3000	1980	7600	e1270	e5780
9	1540	e490	e290	e230	e190	e150	e140	e4400	1800	e5000	1360	5460
10	1410	e490	e290	e230	e180	e150	e140	e7000	1590	3720	1940	4880
11	e1300	e480	e290	e230	e180	e150	e140	e9700	1480	3130	2960	4460
12	e1200	e470	e280	e230	e170	e150	e140	e7800	3690	2700	2880	4070
13	e1100	e460	e280	e230	e170	e150	e140	e6600	e5000	2380	2620	3730
14	e1000	e450	e270	e230	e170	e150	e140	6510	3970	2430	2550	3460
15	e930	e440	e270	e230	e170	e150	e140	8170	4250	2200	2400	3240
16	e850	e430	e260	e230	e170	e150	e140	9590	3620	1970	2310	3070
17	e780	e420	e260	e230	e170	e140	e140	8500	2630	1780	e5400	2920
18	e750	e420	e260	e230	e170	e140	e140	8920	2060	1660	e18900	2830
19	e710	e410	e260	e230	e160	e140	e140	10300	1710	1570	23900	2820
20	e680	e410	e250	e230	e160	e140	e140	11300	1510	1500	17100	2950
21	e660	e410	e250	e220	e160	e140	e140	11700	1990	1870	11900	2880
22	e650	e400	e250	e230	e160	e140	e140	12700	4730	e2810	9330	2740
23	e620	e400	e250	e230	e160	e140	e150	10500	5540	e2430	9190	2600
24	e600	e400	e250	e220	e160	e140	e160	8400	3850	2060	8090	2480
25	e590	e400	e250	e210	e160	e140	e170	6740	e2690	1820	6980	2390
26	e570	e400	e240	e210	e150	e140	e180	5700	2200	2120	6200	2330
27	e570	e400	e240	e210	e150	e140	e210	5190	1950	3070	5480	2280
28	e560	e390	e240	e210	e150	e140	e250	4240	1770	2660	4910	2250
29	e550	e380	e240	e210	---	e140	e310	2820	1580	2500	4470	2210
30	e540	e370	e240	e210	---	e140	e520	2150	1410	2410	4170	2210
31	e540	---	e240	e210	---	e140	---	1860	---	2150	3910	---
TOTAL	28330	13380	8530	6990	4880	4500	5030	199390	80710	104870	170820	100110
MEAN	913.9	446.0	275.2	225.5	174.3	145.2	167.7	6432	2690	3383	5510	3337
MAX	1560	530	360	240	210	150	520	12700	5540	10100	23900	5780
MIN	540	370	240	210	150	140	140	1100	1410	1260	1270	2210
AC-FT	56190	26540	16920	13860	9680	8930	9980	395500	160100	208000	338800	198600
CFSM	0.42	0.21	0.13	0.10	0.08	0.07	0.08	2.96	1.24	1.56	2.54	1.54
IN.	0.49	0.23	0.15	0.12	0.08	0.08	0.09	3.42	1.38	1.80	2.93	1.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1081	503.6	353.4	258.5	209.2	189.1	399.0	4276	3802	2656	3075	2453
MAX	1969	1028	730	471	449	377	1373	8666	8640	7330	13350	6186
(WY)	1994	1994	1994	1992	1994	1992	1993	1962	1964	1949	1967	1952
MIN	484	230	160	130	62.0	60.0	104	1564	963	568	717	636
(WY)	1959	1954	1954	1954	1953	1953	1974	1964	1969	1958	1966	1966

\# See Period of Record
e Estimated

15484000 SALCHA RIVER NEAR SALCHAKET—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002#	
ANNUAL TOTAL	501020		727540			
ANNUAL MEAN	1373		1993		1613	
HIGHEST ANNUAL MEAN					2957	1967
LOWEST ANNUAL MEAN					796	1999
HIGHEST DAILY MEAN	10700	Jul 31	23900	Aug 19	94100	Aug 14 1967
LOWEST DAILY MEAN	a240	Dec 26	b140	Mar 17	c60	Mar 1 1953
ANNUAL SEVEN-DAY MINIMUM	241	Dec 25	140	Mar 17	60	Mar 1 1953
MAXIMUM PEAK FLOW			27300	Aug 19	97000	Aug 14 1967
MAXIMUM PEAK STAGE			16.40	Aug 19	21.78	Aug 14 1967
ANNUAL RUNOFF (AC-FT)	993800		1443000		1169000	
ANNUAL RUNOFF (CFSM)	0.63		0.92		0.74	
ANNUAL RUNOFF (INCHES)	8.59		12.47		10.10	
10 PERCENT EXCEEDS	3350		5420		3950	
50 PERCENT EXCEEDS	620		540		640	
90 PERCENT EXCEEDS	280		140		170	

\# See Period of Record
a From Dec. 26 to Dec. 31
b From Mar. 17 to Apr. 22
c Monthly mean published for Mar. 1953

15485500 TANANA RIVER AT FAIRBANKS

LOCATION.--Lat 64°47'34", long 147°50'20", in $NE^1/_4$ $SW^1/_4$ $SW^1/_4$ sec. 25, T. 1 S., R. 2 W. (Fairbanks D-2 quad), Fairbanks North Star Borough, Hydrologic Unit 19040507, on right bank at the end of Groin No. 1 on Corps of Engineers flood-protection levee, 1.0 mi south of Fairbanks International Airport, and 1.0 mi upstream from Chena River.

DRAINAGE AREA.--Undefined. Part of river flows through Salchaket Slough and is ungaged.

PERIOD OF RECORD.--June 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 400 ft above sea level. Prior to September 14, 1973, nonrecording gage, and September 14, 1973 to June 14, 1985, water-stage recorder, at site 2.8 mi upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 16, 1967 reached a stage of 34.4 ft, from floodmarks at site then in use; discharge, about 125,000 ft^3/s, contained in reports of the Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19500	e11000	e8200	e6500	e6200	e6200	e6200	e9000	34700	42700	57300	42200
2	19300	e11000	e8000	e6500	e6200	e6200	e6200	e9900	35400	43300	57600	40900
3	19000	e11000	e7900	e6500	e6200	e6200	e6200	e13000	36400	45000	54900	39700
4	18800	e11000	e7800	e6400	e6200	e6200	e6200	e17000	36600	49200	51700	38400
5	18600	e11000	e7700	e6400	e6200	e6200	e6200	e21000	35000	58600	52500	36800
6	18800	e12000	e7600	e6400	e6200	e6200	e6200	e19000	33700	58500	54300	36800
7	19000	e12000	e7600	e6400	e6200	e6200	e6200	e17000	34100	57200	56200	38400
8	19100	e12000	e7500	e6400	e6200	e6200	e6200	e17000	34500	58500	57000	41900
9	19200	e12000	e7300	e6400	e6200	e6200	e6200	e19000	34600	57600	56500	42200
10	19000	e11000	e7300	e6400	e6200	e6200	e6200	e20000	35500	54800	58500	39600
11	18600	e10000	e7200	e6400	e6200	e6200	e6200	e25000	37600	51000	56000	37300
12	18200	e10000	e7200	e6300	e6200	e6200	e6200	e29000	37900	47800	56300	35100
13	18000	e9900	e7200	e6300	e6200	e6200	e6200	e33000	42900	47900	56800	33600
14	17000	e9700	e7200	e6300	e6200	e6200	e6200	e35000	46100	48900	57100	32900
15	15700	e9600	e7200	e6300	e6200	e6200	e6300	36500	45000	49800	53000	32000
16	15000	e9500	e7100	e6300	e6200	e6200	e6300	39000	43600	50500	48900	30800
17	14200	e9300	e7100	e6300	e6200	e6200	e6400	39100	41100	51700	49100	29700
18	13100	e9300	e7000	e6300	e6200	e6200	e6400	38100	39400	53300	57900	28800
19	12800	e9200	e7000	e6300	e6200	e6200	e6400	40200	40000	55000	69700	28400
20	e13000	e9200	e7000	e6300	e6200	e6200	e6400	44400	40800	55900	70500	28200
21	e13000	e9100	e6900	e6300	e6200	e6200	e6400	46900	40700	55900	67100	27600
22	e13000	e9000	e6900	e6300	e6200	e6200	e6400	51500	42000	57000	62300	26700
23	e13000	e8900	e6800	e6300	e6200	e6200	e6400	53300	43000	59000	63900	26000
24	e12000	e8900	e6700	e6300	e6200	e6200	e6400	50800	42900	59900	66900	25400
25	e12000	e8900	e6700	e6200	e6200	e6200	e6400	47800	41500	61600	64500	25000
26	e12000	e8800	e6700	e6200	e6200	e6200	e6600	45900	43200	62700	60300	25300
27	e12000	e8700	e6700	e6200	e6200	e6200	e6800	45400	43400	63000	54700	26100
28	e12000	e8700	e6600	e6200	e6200	e6200	e7000	44600	41200	61400	50000	26500
29	e11000	e8600	e6600	e6200	---	e6200	e7400	40500	41000	59000	46800	27300
30	e11000	e8300	e6500	e6200	---	e6200	e8000	36700	42400	60100	44100	26800
31	e11000	---	e6500	e6200	---	e6200	---	34500	---	58500	42800	---
TOTAL	477900	297600	221700	196000	173600	192200	192800	1019100	1186200	1695300	1755200	976400
MEAN	15420	9920	7152	6323	6200	6200	6427	32870	39540	54690	56620	32550
MAX	19500	12000	8200	6500	6200	6200	8000	53300	46100	63000	70500	42200
MIN	11000	8300	6500	6200	6200	6200	6200	9000	33700	42700	42800	25000
AC-FT	947900	590300	439700	388800	344300	381200	382400	2021000	2353000	3363000	3481000	1937000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13540	7706	6166	5611	5413	5361	7388	22590	36360	52670	49180	27450
MAX	20720	10370	8090	7135	6700	6761	12700	36290	51350	66090	70080	44880
(WY)	2001	1986	1986	1986	1991	1993	1995	1991	1992	1992	1997	1990
MIN	8669	5000	4500	4016	3207	3100	4230	14810	25120	39550	34680	16950
(WY)	1997	1977	1977	1974	1974	1974	1974	1998	1978	1996	1996	1976

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1973 - 2002#	
ANNUAL TOTAL	7707500		8384000			
ANNUAL MEAN	21120		22970		20130	
HIGHEST ANNUAL MEAN					22970	2002
LOWEST ANNUAL MEAN					16080	1996
HIGHEST DAILY MEAN	78000	Aug 1	70500	Aug 20	92400	Jul 22 1986
LOWEST DAILY MEAN	a5600	Mar 25	b6200	Jan 25	c3100	Feb 14 1974
ANNUAL SEVEN-DAY MINIMUM	5600	Mar 25	6200	Jan 25	3100	Feb 14 1974
MAXIMUM PEAK FLOW			72500	Aug 19	96400	Jul 22 1986
MAXIMUM PEAK STAGE			24.57	Aug 19	26.25	Aug 14 1997
ANNUAL RUNOFF (AC-FT)	15290000		16630000		14580000	
10 PERCENT EXCEEDS	49300		55400		50300	
50 PERCENT EXCEEDS	11500		12000		9800	
90 PERCENT EXCEEDS	5800		6200		5000	

\# See Period of Record, partial years used in monthly statistics
a From Mar. 25 to Apr. 8
b From Jan. 25 to Apr. 14
c From Feb. 14 to Mar. 31,1974
e Estimated

15493000 CHENA RIVER NEAR TWO RIVERS

LOCATION.--Lat 64°54'10", long 146°21'25", in NE$\frac{1}{4}$ sec. 20, T. 1 N., R. 7 E. (Big Delta D-5 quad), Fairbanks North Star Borough, Hydrologic Unit 19040506, on left bank about 200 ft upstream from bridge at mi 39.5 on the Chena Hot Springs Highway, 15 mi upstream from South Fork Chena River, 22 mi east of Two Rivers, and 41 mi east of Fairbanks.

DRAINAGE AREA.--937 mi^2.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 719.7 ft above sea level from datum used by Alaska Department of Transportation and Public Facilities. Prior to April 25, 1994, water stage recorder at site 2.5 mi downstream at datum of 700 ft.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Corps of Engineers meteor-burst and GOES satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 13, 1967 reached a stage of 26.6 ft at site and datum of gage in use prior to April 25, 1994, from floodmarks, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	562	e255	e195	e155	e130	e98	e94	e1200	798	590	976	1860
2	554	e245	e195	e155	e130	e98	e94	e2200	1550	577	875	1820
3	539	e240	e195	e155	e130	e98	e94	e2800	1590	2360	810	1770
4	533	e230	e190	e155	e125	e98	e94	e2100	1260	6800	756	1670
5	532	e225	e190	e155	e125	e98	e94	e1500	1050	3280	716	1580
6	599	e220	e185	e155	e125	e98	e94	e1060	1110	5580	675	1630
7	747	e215	e185	e155	e125	e96	e94	1120	1090	5870	647	2460
8	808	e210	e185	e155	e120	e96	e94	1310	909	3100	654	2490
9	759	e205	e180	e155	e120	e96	e94	2300	795	2040	729	2260
10	710	e205	e180	e155	e120	e96	e94	4130	716	1590	1000	2090
11	685	e205	e175	e155	e120	e96	e94	3600	879	1320	1200	1890
12	648	e205	e175	e155	e115	e96	e94	3250	2810	1130	1130	1730
13	580	e205	e170	e150	e115	e96	e94	3560	2570	1390	1140	1610
14	516	e205	e170	e150	e115	e96	e94	4410	1960	1230	1120	1500
15	e500	e205	e165	e150	e110	e96	e94	5440	1780	993	1000	1420
16	e470	e205	e165	e150	e110	e96	e94	5700	1320	871	1160	1340
17	e415	e200	e165	e150	e110	e96	e94	5030	1040	794	5320	1270
18	e400	e200	e165	e150	e110	e96	e94	5250	853	737	e9600	1250
19	e385	e200	e160	e145	e105	e96	e96	5300	754	725	7850	1250
20	e370	e200	e160	e145	e105	e96	e96	5220	817	787	6210	1290
21	e355	e200	e160	e145	e105	e96	e98	5520	1290	1740	4910	1260
22	e345	e200	e160	e145	e105	e96	e98	4650	1680	1360	5180	1210
23	e330	e200	e160	e145	e105	e96	e100	3570	1560	1040	5490	1150
24	e315	e200	e160	e140	e100	e94	e105	2770	1140	874	4260	1100
25	e300	e200	e155	e140	e100	e94	e110	2270	933	886	3640	1070
26	e295	e200	e155	e140	e100	e94	e120	2010	858	1570	3110	1040
27	e290	e195	e155	e140	e98	e94	e135	1780	804	1740	2720	1040
28	e285	e195	e155	e135	e98	e94	e160	1230	721	1610	2440	1020
29	e275	e195	e155	e135	---	e94	e220	954	668	1630	2220	1050
30	e265	e195	e155	e135	---	e94	e370	821	632	1380	2060	1150
31	e260	---	e155	e135	---	e94	---	788	---	1140	1910	---
TOTAL	14627	6260	5275	4585	3176	2972	3400	92843	35937	56734	81508	45270
MEAN	472	209	170	148	113	95.9	113	2995	1198	1830	2629	1509
MAX	808	255	195	155	130	98	370	5700	2810	6800	9600	2490
MIN	260	195	155	135	98	94	94	788	632	577	647	1020
AC-FT	29010	12420	10460	9090	6300	5890	6740	184200	71280	112500	161700	89790
CFSM	0.50	0.22	0.18	0.16	0.12	0.10	0.12	3.20	1.28	1.95	2.81	1.61
IN.	0.58	0.25	0.21	0.18	0.13	0.12	0.13	3.69	1.43	2.25	3.24	1.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	568	272	186	132	107	93.9	222	1878	1359	1050	1310	1145
MAX	1656	617	369	242	246	171	578	4210	4038	2505	3207	2702
(WY)	1987	1987	1994	1994	1994	1991	1989	1971	1992	1984	1969	1990
MIN	260	120	85.5	38.1	20.2	21.9	68.3	625	323	380	437	455
(WY)	1969	1969	1977	1970	1970	1970	1982	1998	1969	1976	1976	1976

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	213817		352587			
ANNUAL MEAN	586		966		697	
HIGHEST ANNUAL MEAN					1080	1971
LOWEST ANNUAL MEAN					398	1997
HIGHEST DAILY MEAN	3640	Jul 30	9600	Aug 18	17700	Jun 3 1992
LOWEST DAILY MEAN	a120	Mar 25	b94	Mar 24	c20	Feb 6 1970
ANNUAL SEVEN-DAY MINIMUM	120	Mar 25	94	Mar 24	20	Feb 6 1970
MAXIMUM PEAK FLOW			11000	Aug 18	20000	Jun 3 1992
MAXIMUM PEAK STAGE			21.26	Aug 18	d22.04	Jun 3 1992
ANNUAL RUNOFF (AC-FT)	424100		699400		505200	
ANNUAL RUNOFF (CFSM)	0.63		1.03		0.74	
ANNUAL RUNOFF (INCHES)	8.49		14.00		10.11	
10 PERCENT EXCEEDS	1410		2450		1630	
50 PERCENT EXCEEDS	295		275		325	
90 PERCENT EXCEEDS	140		96		84	

a From Mar. 25 to Apr. 9
b From Mar. 24 to Apr. 17
c From Feb. 6 to Mar. 12, 1970
d At site and datum then in use
e Estimated

15511000 LITTLE CHENA RIVER NEAR FAIRBANKS

LOCATION.--Lat 64°53′10″, long 147°14′50″, in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T. 1 N., R. 2 E. (Fairbanks D-1 quad), Fairbanks North Star Borough, Hydrologic Unit 19040506, on downstream side of left bridge abutment at mi 11.9 Chena Hot Springs Highway, 22.5 mi upstream from mouth, and 14 mi northeast of Fairbanks.

DRAINAGE AREA.--372 mi^2.

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 458.79 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Corps of Engineers meteor-burst and NOAA telephone telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	e78	e60	e29	e28	e27	e27	e110	250	188	324	485
2	184	e84	e58	e29	e28	e27	e27	e260	268	185	289	472
3	180	e94	e56	e29	e28	e27	e27	e720	600	348	266	452
4	180	e96	e56	e29	e28	e27	e28	e740	606	1280	247	434
5	178	e96	e54	e29	e28	e27	e28	e660	442	888	235	425
6	193	e90	e50	e29	e28	e27	e28	e420	403	959	225	426
7	233	e84	e48	e29	e28	e27	e28	e390	357	1090	216	526
8	230	e80	e46	e29	e28	e27	e28	e440	313	734	223	544
9	212	e78	e44	e29	e28	e27	e29	e700	286	563	241	505
10	e200	e78	e42	e29	e28	e27	e29	e870	258	466	247	475
11	e185	e76	e40	e29	e27	e27	e29	e930	244	401	250	449
12	e170	e74	e38	e29	e27	e27	e29	e870	278	356	239	429
13	e160	e74	e38	e29	e27	e27	e30	e850	433	321	244	410
14	e140	e72	e36	e29	e27	e27	e30	e950	424	293	246	395
15	e130	e70	e36	e29	e27	e27	e30	e1000	381	270	235	382
16	e120	e70	e34	e29	e27	e27	e31	e1100	324	249	253	368
17	e110	e70	e34	e29	e27	e27	e32	1250	280	235	616	357
18	e100	e70	e34	e29	e27	e27	e33	1140	250	222	1300	351
19	e100	e70	e32	e28	e27	e27	e34	1080	231	213	1260	346
20	e98	e70	e32	e28	e27	e27	e34	1030	227	216	1230	351
21	e98	e68	e32	e28	e27	e27	e35	978	228	221	946	344
22	e96	e68	e32	e28	e27	e26	e35	832	240	205	841	334
23	e96	e68	e32	e28	e27	e26	e36	693	243	192	842	323
24	e94	e68	e30	e28	e27	e26	e37	589	217	183	784	314
25	e94	e66	e30	e28	e27	e26	e38	511	202	190	765	308
26	e92	e66	e30	e28	e27	e26	e40	457	260	307	716	305
27	e90	e66	e30	e28	e27	e26	e43	421	281	577	656	321
28	e84	e64	e30	e28	e27	e26	e46	359	231	559	604	324
29	e80	e64	e30	e28	---	e26	e52	312	213	546	566	332
30	e78	e62	e29	e28	---	e26	e65	284	202	454	536	369
31	e76	---	e29	e28	---	e27	---	264	---	377	505	---
TOTAL	4269	2234	1202	886	766	828	1018	21210	9172	13288	16147	11856
MEAN	137.7	74.47	38.77	28.58	27.36	26.71	33.93	684.2	305.7	428.6	520.9	395.2
MAX	233	96	60	29	28	27	65	1250	606	1280	1300	544
MIN	76	62	29	28	27	26	27	110	202	183	216	305
AC-FT	8470	4430	2380	1760	1520	1640	2020	42070	18190	26360	32030	23520
CFSM	0.37	0.20	0.10	0.08	0.07	0.07	0.09	1.84	0.82	1.15	1.40	1.06
IN.	0.43	0.22	0.12	0.09	0.08	0.08	0.10	2.12	0.92	1.33	1.61	1.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	192.2	103.1	69.78	46.92	35.15	30.84	89.08	554.6	343.0	292.9	385.4	319.8
MAX	490	264	176	112	74.8	72.0	270	1217	932	665	2147	686
(WY)	1987	1994	1986	1987	2001	1993	1993	1991	1992	1981	1967	1985
MIN	69.8	32.0	22.5	7.90	6.00	3.23	19.1	147	99.2	85.0	124	107
(WY)	1967	1967	1978	1970	1970	1967	1970	1998	1998	1997	1997	1966

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002#	
ANNUAL TOTAL	59592		82876			
ANNUAL MEAN	163.3		227.1		207.5	
HIGHEST ANNUAL MEAN					414	1967
LOWEST ANNUAL MEAN					103	1997
HIGHEST DAILY MEAN	894	Jun 9	1300	Aug 18	12000	Aug 13 1967
LOWEST DAILY MEAN	a29	Dec 30	b26	Mar 22	c0.00	Mar 11 1967
ANNUAL SEVEN-DAY MINIMUM	30	Dec 25	26	Mar 22	0.00	Mar 11 1967
MAXIMUM PEAK FLOW			1490	Jul 4	d17000	Aug 13 1967
MAXIMUM PEAK STAGE			20.47	Jul 4	31.95	Aug 13 1967
MAXIMUM PEAK STAGE			f23.13	May 2		
ANNUAL RUNOFF (AC-FT)	118200		164400		150300	
ANNUAL RUNOFF (CFSM)	0.44		0.61		0.56	
ANNUAL RUNOFF (INCHES)	5.96		8.29		7.58	
10 PERCENT EXCEEDS	330		602		473	
50 PERCENT EXCEEDS	96		90		120	
90 PERCENT EXCEEDS	50		27		25	

\# See Period of Record; partial years used in monthly statistics
a From Dec. 30-31
b From Mar. 22-30
c From Mar. 11 to Apr. 15, 1967
d From rating curve extended above 3,000 ft^3/s on basis of contracted-opening determination of peak flow
e Estimated
f Backwater from ice

15514000 CHENA RIVER AT FAIRBANKS

LOCATION.--Lat 64°50'45", long 147°42'04", in NW1/4 sec. 11, T. 1 S., R. 1 W. (Fairbanks D-2 quad), Fairbanks North Star Borough, Hydrologic Unit 19040506, on right bank 100 ft downstream from Steese Highway Bridge, 800 ft upstream from Wendell Street bridge, 0.3 mi upstream from Noyes Slough, 11 mi upstream from mouth, and 11 mi downstream from Chena Slough.

DRAINAGE AREA.--1,995 mi^2.

PERIOD OF RECORD.--July 1947 to September 1948 (no winter records), October 1948 to current year.

GAGE.--Water-stage recorder and supplementary gage. Datum of gage is 422.92 ft above sea level. Supplementary gage, Chena River at Lathrop Street (15514003), 1.6 mi downstream on left bank, used during winter period. See WSP 1936 and 2136 for history of changes prior to April 27, 1968.

REMARKS.--Records are good except for estimated daily discharges, which are fair. Regulation during high-flow periods began July 9, 1981 at Moose Creek Dam 31.8 mi upstream. Flows on August 19-21 were regulated this year. GOES satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD--Outstanding floods occurred in early May 1905 and 1911, late August 1930, and May 11-14, 1937. See WDR AK-90-1 for more information.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	e460	e400	e240	e225	e225	e230	e700	1970	1340	2270	3600
2	1160	e470	e400	e230	e225	e225	e230	e3000	1890	1290	2040	3440
3	1140	e490	e400	e230	e225	e225	e230	4560	2130	1300	1870	3340
4	1120	e530	e400	e230	e225	e225	e235	4920	2780	2410	1740	3240
5	1110	e560	e380	e230	e225	e225	e235	3750	2470	6280	1630	3140
6	1120	e580	e360	e230	e225	e225	e235	2820	2170	5940	1560	3080
7	1160	e570	e330	e230	e225	e225	e235	2500	2100	6720	1500	3070
8	1260	e540	e320	e230	e225	e225	e235	2680	2100	7790	1450	3540
9	1350	e520	e300	e230	e225	e225	e235	3500	1850	5780	1420	3790
10	1360	e510	e290	e230	e225	e225	e240	5370	1700	4130	1450	3620
11	1320	e500	e290	e230	e225	e225	e240	6890	1580	3410	1560	3460
12	1280	e480	e280	e230	e225	e225	e245	6340	1520	2980	1810	3290
13	1170	e480	e270	e230	e225	e225	e245	5520	2490	2680	1870	3110
14	e960	e470	e260	e230	e225	e225	e245	5530	3170	2540	1860	2960
15	e860	e460	e260	e230	e225	e225	e245	6240	2880	2460	1850	2830
16	e780	e460	e260	e230	e225	e225	e245	7050	2710	2220	1830	2720
17	e720	e450	e260	e230	e225	e220	e250	7770	2360	2030	1990	2600
18	e680	e450	e260	e230	e225	e220	e255	7230	2010	1880	4650	2500
19	e640	e450	e250	e230	e225	e220	e255	7130	1790	1770	7630	2430
20	e640	e450	e250	e230	e230	e215	e255	7130	1640	1700	8760	2380
21	e640	e450	e250	e240	e230	e215	e255	6970	1560	1660	8890	2380
22	e630	e450	e250	e240	e230	e215	e255	7010	1750	1940	8330	2350
23	e650	e450	e250	e250	e230	e215	e255	6360	2220	2120	7690	2310
24	e630	e450	e250	e250	e230	e215	e260	5250	2400	1920	7980	2230
25	e610	e450	e240	e240	e230	e215	e270	4410	2060	1790	7120	2150
26	e590	e450	e240	e240	e230	e220	e280	3820	1810	1820	6170	2110
27	e580	e440	e240	e230	e225	e220	e300	3450	1730	2390	5450	2070
28	e560	e430	e240	e230	e225	e220	e315	3160	1630	2850	4830	2050
29	e540	e420	e240	e225	---	e225	e330	2790	1510	2800	4390	2030
30	e500	e410	e240	e225	---	e225	e410	2410	1410	2750	4060	2050
31	e470	---	e240	e225	---	e225	---	2130	---	2560	3820	---
TOTAL	27410	14280	8900	7205	6335	6885	7750	148390	61390	91250	119470	83870
MEAN	884.2	476.0	287.1	232.4	226.2	222.1	258.3	4787	2046	2944	3854	2796
MAX	1360	580	400	250	230	225	410	7770	3170	7790	8890	3790
MIN	470	410	240	225	225	215	230	700	1410	1290	1420	2030
MED	780	460	260	230	225	225	245	4920	1990	2410	2040	2780
AC-FT	54370	28320	17650	14290	12570	13660	15370	294300	121800	181000	237000	166400
CFSM	0.44	0.24	0.14	0.12	0.11	0.11	0.13	2.40	1.03	1.48	1.93	1.40
IN.	0.51	0.27	0.17	0.13	0.12	0.13	0.14	2.77	1.14	1.70	2.23	1.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1190	591.0	444.7	340.9	281.7	260.0	465.2	3656	2555	2045	2483	2169
MAX	2413	1231	922	595	509	445	1406	10250	6721	6133	13120	5735
(WY)	1962	1994	1994	1987	1968	1968	1993	1948	1949	1949	1967	1962
MIN	461	297	194	163	120	120	209	1050	816	665	682	615
(WY)	1967	1959	1977	1977	1953	1958	1977	1998	1969	1958	1957	1957

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1948 - 2002#	
ANNUAL TOTAL	389679		583135			
ANNUAL MEAN	1068		1598		1359	
HIGHEST ANNUAL MEAN					2603	1962
LOWEST ANNUAL MEAN					713	1958
HIGHEST DAILY MEAN	4340	Aug 18	8890	Aug 21	64600	Aug 15 1967
LOWEST DAILY MEAN	a240	Dec 25	b215	Mar 20	c120	Feb 1 1953
ANNUAL SEVEN-DAY MINIMUM	240	Dec 25	216	Mar 19	120	Feb 1 1953
MAXIMUM PEAK FLOW			8950	Aug 21	74400	Aug 15 1967
MAXIMUM PEAK STAGE			8.58	Aug 21	d18.82	Aug 15 1967
ANNUAL RUNOFF (AC-FT)	772900		1157000		984500	
ANNUAL RUNOFF (CFSM)	0.54		0.80		0.68	
ANNUAL RUNOFF (INCHES)	7.27		10.87		9.26	
10 PERCENT EXCEEDS	2380		4090		3070	
50 PERCENT EXCEEDS	630		560		710	
90 PERCENT EXCEEDS	340		225		230	

\# See Period of Record
a Dec. 25 to 31
b Mar. 20 to 25
c Monthly means published for Feb. 1953 and Mar. 1958
d Site then in use
e Estimated

15515500 TANANA RIVER AT NENANA

LOCATION.--Lat 64°33′55″, long 149°05′30″, in SE1/4 sec. 14, T. 4 S., R. 8 W. (Fairbanks C-5 quad), Hydrologic Unit 19040507, on left bank on east end of Alaska Railroad dock in Nenana, and 0.3 mi upstream from Nenana River.

DRAINAGE AREA.--25,600 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1962 to current year.

REVISED RECORDS.--WSP 2136: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 338.50 ft above sea level. Prior to March 10, 1965, on right bank 280 ft downstream from railroad bridge 0.5 mi upstream at present datum. March 10, 1965 to March 23, 1968, nonrecording gage on railroad bridge 0.5 mi upstream at present datum.

REMARKS.--Records fair. GOES satellite telemetry at station.

EXTREMES OUTSIDE PEROD OF RECORD.--Flood of May 1948 reached a stage of 15.9 ft, discharge, about 135,000 ft^3/s, contained in reports of Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22900	e12000	e9200	e7400	e6800	e6800	e6800	e10000	43400	48000	58900	51900
2	22500	e12000	e9000	e7300	e6800	e6800	e6800	e12000	43100	50100	58100	50900
3	22200	e12000	e8800	e7300	e6800	e6800	e6800	e14000	43900	54600	57900	49200
4	21900	e12000	e8800	e7300	e6800	e6800	e6800	e18000	44100	60100	55800	47600
5	21600	e13000	e8600	e7300	e6800	e6800	e6800	e24000	43200	66700	55300	45800
6	21700	e13000	e8400	e7200	e6800	e6800	e7000	e22000	42100	71900	55900	44800
7	22200	e13000	e8400	e7200	e6800	e6800	e7000	e20000	42500	71800	58400	46700
8	22200	e13000	e8400	e7200	e6800	e6800	e7000	e19000	43500	70400	62300	49300
9	22000	e12500	e8200	e7200	e6800	e6800	e7000	e20000	43000	68900	62600	50700
10	22000	e12000	e8200	e7200	e6800	e6800	e7000	e22000	41800	65100	63500	49300
11	21600	e12000	e8200	e7200	e6800	e6800	e7000	e28000	42200	61000	63500	46400
12	21200	e12000	e8200	e7000	e6800	e6800	e7000	e34000	42600	57600	62100	43400
13	20200	e11000	e8000	e7000	e6800	e6800	e7000	e40000	44000	55700	62600	41600
14	e20000	e11000	e8000	e7000	e6800	e6800	e7000	e43000	49000	55000	62600	40800
15	e19000	e11000	e8000	e7000	e6800	e6800	e7000	e46000	49600	55100	59500	39600
16	e18000	e11000	e8000	e7000	e6800	e6800	e7000	48400	48600	55100	55500	38000
17	e17000	e11000	e7800	e7000	e6800	e6800	e7200	51400	47200	55200	58000	36300
18	e17000	e10000	e7800	e7000	e6800	e6800	e7200	51700	45600	56600	64200	34600
19	e16000	e10000	e7800	e7000	e6800	e6800	e7200	53500	45300	57900	73400	33700
20	e15000	e10000	e7800	e7000	e6800	e6800	e7200	58500	48100	59100	80800	33800
21	e15000	e10000	e7600	e7000	e6800	e6800	e7200	61100	49900	58200	79700	33300
22	e14000	e10000	e7600	e6800	e6800	e6800	e7200	63000	51200	57600	76800	31700
23	e14000	e10000	e7600	e6800	e6800	e6800	e7200	66000	50800	59300	75200	30700
24	e14000	e10000	e7600	e6800	e6800	e6800	e7400	63600	49400	60400	77900	29900
25	e13000	e10000	e7600	e6800	e6800	e6800	e7400	60800	48400	61700	77700	29300
26	e13000	e10000	e7600	e6800	e6800	e6800	e7400	58100	48800	62100	73400	29700
27	e13000	e9800	e7400	e6800	e6800	e6800	e7700	57400	49100	62000	67800	32000
28	e13000	e9600	e7400	e6800	e6800	e6800	e8000	55300	47400	61800	61500	33300
29	e12000	e9600	e7400	e6800	---	e6800	e8400	51900	46200	60100	57300	34300
30	e12000	e9400	e7400	e6800	---	e6800	e9200	47400	46700	60600	54300	34200
31	e12000	---	e7400	e6800	---	e6800	---	45000	---	61400	52700	---
TOTAL	551200	331900	248200	217800	190400	210800	216900	1265100	1380700	1861100	1985200	1192800
MEAN	17780	11060	8006	7026	6800	6800	7230	40810	46020	60040	64040	39760
MAX	22900	13000	9200	7400	6800	6800	9200	66000	51200	71900	80800	51900
MIN	12000	9400	7400	6800	6800	6800	6800	10000	41800	48000	52700	29300
MED	18000	11000	8000	7000	6800	6800	7000	46000	45900	60100	62300	38800
AC-FT	1093000	658300	492300	432000	377700	418100	430200	2509000	2739000	3691000	3938000	2366000
CFSM	0.69	0.43	0.31	0.27	0.27	0.27	0.28	1.59	1.80	2.35	2.50	1.55
IN.	0.80	0.48	0.36	0.32	0.28	0.31	0.32	1.84	2.01	2.70	2.88	1.73

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16950	9306	7385	6751	6537	6472	8703	31030	47590	59950	57010	33650
MAX	26870	14070	10770	9065	8171	8161	15090	62210	87390	76770	98210	57690
(WY)	2001	1986	1986	1986	1986	1993	1995	1963	1962	1988	1967	1990
MIN	11420	5517	4532	4694	4421	4071	5870	16030	29750	44920	41510	21710
(WY)	1977	1977	1977	1977	1974	1974	1974	1964	1970	1996	1996	1976

\# See Period of Record, partial years used in monthly statistics
e Estimated

15515500 TANANA RIVER AT NENANA—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002#	
ANNUAL TOTAL	9238900		9652100			
ANNUAL MEAN	25310		26440		24180	
HIGHEST ANNUAL MEAN					29310	1967
LOWEST ANNUAL MEAN					19530	1970
HIGHEST DAILY MEAN	93300	Aug 1	80800	Aug 20	183000	Aug 18 1967
LOWEST DAILY MEAN	7400	Mar 26	6800	Jan 22	4000	Mar 6 1974
ANNUAL SEVEN-DAY MINIMUM	a7400	Mar 26	b6800	Jan 22	c4000	Mar 6 1974
MAXIMUM PEAK FLOW			81600	Aug 20	186000	Aug 18 1967
MAXIMUM PEAK STAGE			11.24	Aug 20	d18.90	Aug 18 1967
ANNUAL RUNOFF (AC-FT)	18330000		19140000		17520000	
ANNUAL RUNOFF (CFSM)	0.99		1.03		0.94	
ANNUAL RUNOFF (INCHES)	13.43		14.03		12.83	
10 PERCENT EXCEEDS	59600		60500		58200	
50 PERCENT EXCEEDS	13000		13000		12000	
90 PERCENT EXCEEDS	7600		6800		6200	

See Period of Record, partial years used in monthly statistics
a From Mar. 26 to Apr. 7
b From Jan. 22 to Apr. 5
c From Mar. 6 to Mar. 20, 1974
d At site then in use

15515500 TANANA RIVER AT NENANA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954-57, 1963-64, 1966-75, 1978-1995, and 2001 to current year.

PERIOD OF RECORD.--
WATER TEMPERATURE: 1954 to 1956 (seasonal).

WATER QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	SAMPLE LOC-ATION, CROSS SECTION (FT FM R BK) (72103)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
MAR									
22...	1733	570	--	310	7.5	.0	766	7.9	54
22...	1750	470	--	310	7.5	.0	766	8.0	55
22...	1758	370	--	311	7.5	.0	766	8.0	55
22...	1811	255	--	311	7.5	.0	766	8.0	55
22...	1845	140	--	311	7.5	.0	766	8.1	55
MAY									
14...	1610	190	--	171	7.7	1.5	767	9.3	66
14...	1611	290	--	171	7.7	1.5	767	9.6	68
14...	1614	380	--	171	7.8	1.5	767	9.9	70
14...	1615	440	--	171	7.8	1.5	767	10.0	71
29...	1654	--	245.0	205	8.0	12.1	745	9.0	86
29...	1656	--	345.0	205	8.0	12.1	745	9.1	86
29...	1657	--	410.0	205	8.0	12.1	745	9.1	86
29...	1659	--	470.0	205	8.0	12.1	745	9.1	86
29...	1700	--	520.0	205	8.1	12.1	745	9.1	86
JUL									
16...	1550	550	--	208	8.0	17.3	762	9.3	97
16...	1552	500	--	208	8.0	17.3	762	9.2	96
16...	1553	460	--	208	8.0	17.3	762	9.2	96
16...	1554	384	--	208	8.0	17.3	762	9.2	95
16...	1556	295	--	208	8.0	17.3	762	9.1	95
29...	1345	190	--	206	8.1	14.3	771	9.2	89
29...	1348	350	--	206	8.1	14.3	771	9.2	89
29...	1351	470	--	206	8.1	14.3	771	9.2	89
29...	1355	550	--	206	8.1	14.3	771	9.2	89
29...	1400	660	--	206	8.1	14.3	771	9.2	89
AUG									
21...	1552	140	--	181	7.7	9.2	747	11.3	100
21...	1554	370	--	181	7.7	9.2	747	11.3	100
21...	1556	500	--	181	7.6	9.2	747	11.2	100
21...	1558	550	--	180	7.7	9.2	747	11.2	100
21...	1600	680	--	180	7.6	9.2	747	11.2	100
30...	1612	--	460.0	230	7.7	10.9	758	11.1	101
30...	1614	--	350.0	230	7.5	10.9	758	11.1	101
30...	1616	--	260.0	230	7.5	10.9	758	11.1	101
30...	1617	--	190.0	229	7.5	10.9	758	11.1	101
30...	1618	--	105.0	229	7.6	10.9	758	11.3	102

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	QUALITY ASSUR-ANCE DATA INDICA-TOR CODE (99111)	REP-LICATE TYPE (CODE) (99105)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)
MAR													
22...	1800	9	9	680	--	6600	20	3044	100	--	310	7.6	.0
MAY													
14...	1500	9	9	560	7.20	46100	20	3055	30	--	171	7.8	--
29...	1550	9	9	600	7.89	51000	20	3055	30	--	205	8.0	--
JUL													
16...	1430	9	9	591	8.29	55000	20	3055	100	--	208	8.0	--
29...	1310	9	9	--	8.88	60400	20	3055	30	--	206	8.1	--
AUG													
21...	1330	9	7	740	11.00	72500	20	3055	30	10.00	181	7.7	--
30...	1540	9	9	655	8.16	50000	20	3055	30	--	229	7.5	--

15515500 TANANA RIVER AT NENANA—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	UV ABSORBANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORBANCE 280 NM, WTR FLT (UNITS /CM) (61726)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
MAR													
22...	.0	4.7	.024	.018	766	8.2	56	150	45.0	9.28	4.11	126	2.24
MAY													
14...	1.5	540	.406	.306	767	9.9	70	82	24.0	5.43	2.32	57	1.80
29...	12.1	790	.130	.097	745	9.0	86	92	25.9	6.57	2.57	65	1.95
JUL													
16...	17.3	780	.053	.039	762	9.2	96	98	28.6	6.43	3.48	70	1.98
29...	14.5	1300	.044	.032	771	9.2	89	98	29.1	6.11	3.28	68	1.92
AUG													
21...	9.0	380	.249	.185	747	11.3	79	88	25.3	6.01	2.58	59	1.41
30...	10.9	210	.125	.091	758	11.1	101	110	31.0	7.67	3.39	76	1.43

Date	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKALINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
MAR													
22...	151	.0	124	130	34.3	1.33	.1	14.7	202	187	E.002	.184	.049
MAY													
14...	69	.0	57	--	23.1	.45	E.07	6.97	130	99	E.002	.081	E.009
29...	78	.0	64	--	31.8	.99	E.10	6.79	131	116	E.002	.089	<.015
JUL													
16...	85	.0	70	--	30.8	1.23	<.10	6.98	126	122	<.002	.083	<.015
29...	82	.0	67	--	30.5	1.12	.11	6.61	129	120	<.002	.078	<.015
AUG													
21...	72	.0	59	--	27.6	.76	E.09	7.64	132	107	E.002	.122	<.015
30...	93	.0	76	--	35.2	1.13	E.11	8.86	145	135	E.002	.105	<.015

Date	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	NITROGEN, TOTAL, SEDIMNT SUSP, (WEIGHT PERCNT) (62845)	PHOSPHORUS SEDIMENT SUSP. PERCENT (30292)	ALUMINUM SED,SUS PERCENT (30221)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY SED. SUSP. (UG/G) (29816)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC SED. SUSP. (UG/G) (29818)	ARSENIC DISSOLVED (UG/L AS AS) (01000)
MAR													
22...	.11	.11	.027	<.004	<.007	--	.110	7.0	1	1.5	.17	44	.5
MAY													
14...	1.1	.33	2.13	.011	E.004	<.10	.070	6.6	32	1.2	.29	13	1.2
29...	.64	.13	.83	.006	<.007	<.10	.080	7.8	16	2.2	.47	21	1.0
JUL													
16...	.52	E.07	1.35	E.003	<.007	<.10	.080	8.1	22	1.8	.34	16	1.2
29...	.57	E.08	1.47	E.004	E.004	<.10	.080	7.9	16	1.8	.38	15	.9
AUG													
21...	.45	.20	1.24	.006	<.007	<.10	.080	7.0	29	1.2	.30	14	1.1
30...	.33	.12	.66	E.004	<.007	<.10	.080	7.0	19	1.4	.34	15	1.0

Date	BARIUM SED. SUSP. (UG/G) (29820)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM SED. SUSP. (UG/G) (29822)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM SED. SUSP. (UG/G) (29826)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM SED. SUSP. (UG/G) (29829)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT SEDIMENT SUSP. (UG/G) (35031)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER SED. SUSP. (UG/G) (29832)	COPPER, DISSOLVED (UG/L AS CU) (01040)
MAR													
22...	840	49	1	<.06	22	.7	E.02	100	E.5	17	.19	50	.9
MAY													
14...	780	30	1	<.06	11	.3	E.03	85	<.8	14	.34	34	4.6
29...	1100	31	2	<.06	14	.4	E.02	110	<.8	21	.13	55	3.0
JUL													
16...	900	31	2	<.06	18	.2	<.04	95	<.8	21	.08	59	1.5
29...	880	28	2	<.06	19	.3	<.04	76	<.8	20	.06	54	1.3
AUG													
21...	770	25	1	<.06	12	.4	.04	85	E.6	16	.22	40	3.6
30...	790	32	2	<.06	20	.2	<.04	86	<.8	17	.16	42	2.5

15515500 TANANA RIVER AT NENANA—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	IRON SEDI-MENT SUSP. PERCENT (30269)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD SED. SUSP. (UG/G) (29836)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM SEDI-MENT SUSP. (UG/G) (35050)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MAN-GANESE SED. SUSP. (UG/G) (29839)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY SED. SUSP. (UG/G) (29841)	MOLYB-DENUM SED. SUSP. (UG/G) (29843)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL SED. SUSP. (UG/G) (29845)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
MAR													
22...	5.5	19	20	<.08	23	3.4	1100	89.0	.04	2	1.3	45	.25
MAY													
14...	3.4	209	13	.24	20	1.8	680	72.5	.03	1	.7	37	2.71
29...	4.6	25	20	E.07	42	3.1	920	9.1	.04	2	.9	56	1.79
JUL													
16...	4.7	E6	20	<.08	31	4.6	800	4.7	.04	3	1.1	46	.44
29...	4.6	E6	20	<.08	30	4.2	770	3.1	.03	2	1.2	43	.77
AUG													
21...	4.0	88	18	.11	24	2.6	680	29.3	.20	1	.7	38	2.09
30...	4.0	42	12	<.08	22	4.2	750	19.1	.04	<1	1.2	46	.93

Date	SELE-NIUM SED. SUSP. (UG/G) (29847)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER SED. SUSP. (UG/G) (29850)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM SEDI-MENT SUSP. (UG/G) (35040)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	THAL-LIUM SUS SED (UG/G) (49955)	TITA-NIUM SEDI-MENT SUSP. PERCENT (30317)	VANA-DIUM SED. SUSP. (UG/G) (29853)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC SED. SUSP. (UG/G) (29855)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM SEDI-MENT SUSP. (UG/G) (35046)
MAR													
22...	M	.9	<.5	<1	230	193	<50	.370	120	<.2	110	1	<50
MAY													
14...	M	E.3	<.5	<1	230	105	<50	.400	110	.9	76	3	<50
29...	M	.5	<.5	<1	220	118	<50	.450	150	1.5	120	2	<50
JUL													
16...	M	.7	<.5	<1	240	121	<50	.450	130	1.2	100	<1	<50
29...	M	.4	<.5	<1	240	113	<50	.440	130	.6	94	3	<50
AUG													
21...	M	.4	<.5	<1	240	102	<50	.400	110	.6	77	4	<50
30...	M	.6	<.5	<1	230	136	<50	.440	120	.6	75	2	<50

Date	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON SED. SUSP. PERCENT (30244)	CARBON, ORGANIC SUS-PENDED, TOTAL PERCENT (50465)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	SEDI-MENT SUSP., FLOW-THROUGH CENTRIF (MG/L) (50279)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR												
22...	.83	1.0	<.1	.3	.3	1.6	--	<.02	12	13	232	73
MAY												
14...	.68	11.7	1.6	8.6	10.2	.60	.4	.62	2880	3050	379000	46
29...	.89	3.7	1.1	5.8	6.9	.60	.5	.40	1210	1200	166000	72
JUL												
16...	.82	1.8	1.1	3.8	4.9	.60	.3	.29	1610	1710	254000	69
29...	.73	1.5	1.6	8.3	9.9	.60	.4	.48	2110	1940	316000	78
AUG												
21...	.60	7.4	1.6	7.2	8.8	.60	.4	.56	1920	1910	374000	61
30...	.78	3.8	.5	4.4	5.0	.60	.4	.18	952	998	135000	55

15518080 LIGNITE CREEK ABOVE MOUTH NEAR HEALY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980 to 1981, 1986 to current year

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)
OCT													
05...	1845	23.0	2.76	22	10	3001	7.0	7.0	145	8.6	--	--	--
JUN													
21...	1230	45.0	3.45	124	10	3001	5.0	10.5	3640	1220	11	15	22
JUL													
09...	1645	39.8	2.56	78	10	3001	13.5	20.5	1320	278	29	40	50
AUG													
09...	1924	27.5	2.59	91	10	3001	9.5	8.5	2620	644	24	33	42
21...	1247	39.5	2.74	108	10	3001	11.0	--	1970	574	23	33	44
SEP													
20...	1111	22.6	2.44	61	10	3001	4.0	2.0	1170	193	11	18	23

Date	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
OCT								
05...	--	--	47	--	--	--	--	--
JUN								
21...	31	41	47	62	85	97	99	100
JUL								
09...	61	69	72	79	89	97	97	98
AUG								
09...	51	60	66	81	96	100	--	--
21...	54	63	65	72	83	98	99	100
SEP								
20...	29	33	37	47	68	95	99	100
27...	40	42	55	75	91	97	98	

15564879 SLATE CREEK AT COLDFOOT

LOCATION.--Lat 67°15'17", long 150°10'24", in NW$^1/_4$ sec. 15, T. 28 N., R. 12 W. (Wiseman B-1 quad), Hydrologic Unit 19040601, on left bank 40 ft downstream from bridge on Dalton Highway, 1.1 mi upstream from mouth and 0.1 mi north of Coldfoot.

DRAINAGE AREA.--73.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximums, water years 1981-94. May 1995 to current year (no winter records in water years 1995-98).

REVISED RECORDS.--WRD AK-99-1: 1984(M), 1989(M), 1993(M), 1994(M), 1998 (M).

GAGE.--Water-stage recorder. Elevation of gage is 1050 ft above sea level, from topographic map. Prior to May 5, 1995, nonrecording gage at site 105 ft upstream at same datum. May 5, 1995 to May 22, 2002, recording gage at site 40 ft downstream at same datum.

REMARKS.--Records good except for the periods Oct. 1 to 12, 2001 and May 27 to July 10 which are fair and estimated daily discharges which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	e11	e3.0	e0.60	e0.00	e0.00	e0.00	e0.20	270	117	48	45
2	74	e10	e2.8	e0.60	e0.00	e0.00	e0.00	e0.20	258	115	46	43
3	71	e9.6	e2.6	e0.40	e0.00	e0.00	e0.00	e0.20	306	114	47	43
4	70	e9.4	e2.6	e0.40	e0.00	e0.00	e0.00	e0.20	337	110	45	43
5	71	e8.8	e2.4	e0.40	e0.00	e0.00	e0.00	e0.40	316	96	44	52
6	74	e8.6	e2.2	e0.40	e0.00	e0.00	e0.00	e0.60	326	90	42	68
7	82	e8.0	e2.0	e0.40	e0.00	e0.00	e0.00	e0.80	307	214	42	72
8	78	e7.6	e2.0	e0.40	e0.00	e0.00	e0.00	e1.0	322	198	40	76
9	72	e7.2	e1.8	e0.40	e0.00	e0.00	e0.00	e1.8	283	139	40	77
10	73	e7.0	e1.8	e0.40	e0.00	e0.00	e0.00	e2.8	240	112	41	73
11	73	e6.8	e1.6	e0.20	e0.00	e0.00	e0.00	e4.4	222	97	45	73
12	65	e6.6	e1.6	e0.20	e0.00	e0.00	e0.00	e8.0	268	89	44	92
13	e54	e6.4	e1.4	e0.20	e0.00	e0.00	e0.00	e12	209	89	57	190
14	e46	e6.2	e1.4	e0.20	e0.00	e0.00	e0.00	e18	232	83	54	179
15	e41	e6.0	e1.2	e0.20	e0.00	e0.00	e0.00	e28	182	78	60	153
16	e36	e6.0	e1.2	e0.20	e0.00	e0.00	e0.00	e44	156	73	70	134
17	e32	e5.8	e1.2	e0.20	e0.00	e0.00	e0.00	e60	143	70	64	122
18	e29	e5.8	e1.0	e0.20	e0.00	e0.00	e0.00	e100	125	66	58	113
19	e27	e5.6	e1.0	e0.20	e0.00	e0.00	e0.00	e160	117	64	71	120
20	e24	e5.6	e1.0	e0.20	e0.00	e0.00	e0.00	e300	160	75	79	111
21	e22	e5.4	e1.0	e0.00	e0.00	e0.00	e0.00	e450	164	67	71	106
22	e21	e5.2	e0.80	e0.00	e0.00	e0.00	e0.00	e800	129	61	64	99
23	e19	e5.0	e0.80	e0.00	e0.00	e0.00	e0.00	e1100	117	59	59	94
24	e18	e4.8	e0.80	e0.00	e0.00	e0.00	e0.00	e1160	105	57	55	91
25	e17	e4.6	e0.80	e0.00	e0.00	e0.00	e0.00	e1310	98	55	53	94
26	e16	e4.2	e0.60	e0.00	e0.00	e0.00	e0.20	e1330	136	57	53	101
27	e15	e4.0	e0.60	e0.00	e0.00	e0.00	e0.20	855	320	63	51	170
28	e14	e3.6	e0.60	e0.00	e0.00	e0.00	e0.20	415	185	62	49	223
29	e13	e3.4	e0.60	e0.00	---	e0.00	e0.20	258	166	57	50	299
30	e12	e3.2	e0.60	e0.00	---	e0.00	e0.20	227	141	53	48	366
31	e11	---	e0.60	e0.00	---	e0.00	---	270	---	50	46	---
TOTAL	1345	191.4	43.60	6.40	0.00	0.00	1.00	8917.60	6340	2730	1636	3522
MEAN	43.4	6.38	1.41	0.21	0.000	0.000	0.033	288	211	88.1	52.8	117
MAX	82	11	3.0	0.60	0.00	0.00	0.20	1330	337	214	79	366
MIN	11	3.2	0.60	0.00	0.00	0.00	0.00	0.20	98	50	40	43
AC-FT	2670	380	86	13	0.00	0.00	2.0	17690	12580	5410	3250	6990
CFSM	0.59	0.09	0.02	0.00	0.00	0.00	0.00	3.92	2.88	1.20	0.72	1.60
IN.	0.68	0.10	0.02	0.00	0.00	0.00	0.00	4.52	3.21	1.38	0.83	1.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	45.1	14.2	7.30	4.12	2.88	2.31	3.48	220	208	99.7	189	147
MAX	88.5	30.0	17.3	12.1	9.07	7.13	9.32	378	308	184	435	212
(WY)	1999	1999	1999	1999	1999	1999	1998	1998	2001	1995	1998	1998
MIN	16.2	2.28	1.41	0.12	0.000	0.000	0.000	71.7	128	54.7	52.8	71.7
(WY)	1997	1998	2002	2001	2001	2001	2001	2000	1997	1996	2002	1996

\# See Period of Record; partial years used in monthly summary statistics

e Estimated

15564879 SLATE CREEK AT COLDFOOT—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002#	
ANNUAL TOTAL	25845.50		24733.00			
ANNUAL MEAN	70.8		67.8		72.1	
HIGHEST ANNUAL MEAN					84.0	1999
LOWEST ANNUAL MEAN					65.9	2000
HIGHEST DAILY MEAN	1500	Aug 14	1330	May 26	a2850	May 26 1998
LOWEST DAILY MEAN	b0.00	Jan 13	c0.00	Jan 21	0.00	Jan 13 2001
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 13	0.00	Jan 21	0.00	Jan 13 2001
MAXIMUM PEAK FLOW			d	May 26	f4930	May 26 1998
MAXIMUM PEAK STAGE			17.54	May 26	19.73	May 26 1998
ANNUAL RUNOFF (AC-FT)	51260		49060		52230	
ANNUAL RUNOFF (CFSM)	0.96		0.92		0.98	
ANNUAL RUNOFF (INCHES)	13.10		12.53		13.35	
10 PERCENT EXCEEDS	154		174		178	
50 PERCENT EXCEEDS	6.4		7.0		18	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

\# See Period of Record; partial years used in monthly summary statistics
a Revised in 1999 from 2740 ft^3/s
b From Jan. 13 to May 5
c From Jan. 21 to Apr. 25
d Not determined, see highest daily mean
f From rating curve extended above 2,190 ft^3/s on basis of slope-area measurement at discharge 4,700 ft^3/s, gage height 19.6 ft, at previous site 40 ft downstream

15564879 SLATE CREEK AT COLDFOOT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1998 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1998 to current year (seasonal).

INSTRUMENTATION.--Water-temperature recorder since May 11, 1998. Electronic water temperature recorder set for 1-hour recording interval.

REMARKS.--No record October 16 to May 21 due to probe frozen in ice. Records represent water temperature at sensor within 0.5°C. Temperature at the sensor was compared with the stream average by cross section on September 11. No variation was found within the cross section. The variation found between mean stream temperature and sensor temperature was less than 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 14.5°C, July 5 and 21, 1998 and July 24, 2002; minimum, 0.0°C, on many days during spring break up and winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 14.5°C, July 24; minimum, 0.0°C, October 11 to 15, May 22 to June 2, 4-6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)
SEP								
11...	2037	47.0	8.00	14.27	72	10	5.0	5.5
11...	2038	47.0	16.0	14.27	72	10	5.0	5.5
11...	2040	47.0	24.0	14.27	72	10	5.0	5.5
11...	2042	47.0	32.0	14.27	72	10	5.0	5.5
11...	2044	47.0	40.0	14.27	72	10	5.0	5.5

TEMPERATURE, WATER (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	2.5	1.0	2.0	---	---	---	---	---	---	---	---	---
2	2.5	0.5	2.0	---	---	---	---	---	---	---	---	---
3	2.5	1.5	2.0	---	---	---	---	---	---	---	---	---
4	3.5	2.0	2.5	---	---	---	---	---	---	---	---	---
5	3.5	2.0	2.5	---	---	---	---	---	---	---	---	---
6	3.5	2.5	3.0	---	---	---	---	---	---	---	---	---
7	3.0	2.0	2.5	---	---	---	---	---	---	---	---	---
8	2.0	1.0	1.5	---	---	---	---	---	---	---	---	---
9	1.0	0.5	0.5	---	---	---	---	---	---	---	---	---
10	1.5	0.5	1.0	---	---	---	---	---	---	---	---	---
11	1.0	0.0	0.5	---	---	---	---	---	---	---	---	---
12	1.0	0.0	0.5	---	---	---	---	---	---	---	---	---
13	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
14	0.5	0.0	0.5	---	---	---	---	---	---	---	---	---
15	0.5	0.0	0.5	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

15564879 SLATE CREEK AT COLDFOOT—Continued

TEMPERATURE, WATER (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	1.5	0.0	0.5
23	---	---	---	---	---	---	---	---	---	1.5	0.0	0.5
24	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
25	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
26	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
27	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
28	---	---	---	---	---	---	---	---	---	2.5	0.0	1.0
29	---	---	---	---	---	---	---	---	---	2.5	0.0	1.0
30	---	---	---	---	---	---	---	---	---	3.0	0.0	1.0
31	---	---	---	---	---	---	---	---	---	3.0	0.0	1.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3.0	0.0	1.5	8.0	4.0	6.0	13.0	7.5	10.0	8.5	4.5	6.5
2	3.5	0.0	1.0	9.5	4.5	6.5	13.5	8.5	10.5	7.5	3.5	5.5
3	3.0	0.5	1.5	7.5	3.5	5.5	14.0	8.0	11.0	7.5	5.0	6.5
4	2.0	0.0	1.0	8.0	2.5	5.5	13.5	8.0	11.0	7.0	5.0	6.0
5	3.5	0.0	1.5	9.0	3.5	6.0	12.5	8.5	10.5	7.0	6.0	6.5
6	4.0	0.0	2.0	7.0	5.0	6.0	11.0	5.5	8.0	7.5	6.0	6.5
7	4.5	0.5	2.0	6.5	4.5	5.5	11.0	6.0	8.5	8.0	5.0	6.5
8	4.0	1.5	2.5	8.0	4.0	6.0	9.0	6.5	7.5	7.0	5.5	6.0
9	6.0	1.5	3.5	10.0	4.0	6.5	9.5	7.0	8.0	6.5	5.0	5.5
10	6.0	2.0	4.0	11.0	3.5	7.5	9.5	6.5	8.0	5.0	3.5	4.0
11	5.5	2.5	4.0	10.0	5.0	7.5	10.0	6.5	8.0	5.0	4.0	4.5
12	6.5	2.0	4.0	9.5	5.5	7.0	8.5	6.5	7.5	5.0	4.0	4.5
13	5.5	3.0	4.0	10.0	5.5	7.5	9.0	6.0	7.5	5.0	4.0	4.5
14	7.0	2.5	5.0	10.0	6.0	8.0	9.5	4.0	7.0	6.0	3.5	4.5
15	8.5	2.0	5.0	12.0	6.0	9.0	8.0	6.0	6.5	6.0	2.5	4.5
16	9.5	3.0	6.0	12.0	6.0	9.0	9.0	6.0	7.5	5.5	3.0	4.0
17	9.5	3.5	6.5	13.5	7.0	10.0	8.0	5.5	7.0	5.5	2.0	3.5
18	9.0	2.5	5.5	14.0	6.5	10.0	7.0	4.5	6.0	5.5	2.5	4.0
19	10.0	4.0	6.5	14.0	7.5	10.5	7.5	5.5	6.5	4.5	2.0	3.0
20	6.5	4.0	5.0	13.5	7.5	10.5	8.0	4.5	6.0	4.0	2.0	3.0
21	5.5	1.5	3.5	14.0	7.5	10.5	7.5	3.0	5.5	3.5	1.5	2.5
22	5.0	2.5	4.0	13.0	7.5	10.0	8.5	4.0	6.0	3.5	0.0	1.5
23	5.0	3.5	4.0	10.5	8.5	9.5	8.0	3.0	5.5	4.0	0.5	2.0
24	9.5	2.5	5.5	14.5	7.5	10.5	8.5	3.0	5.5	3.0	0.5	1.5
25	11.5	3.5	7.5	12.0	8.5	9.0	8.5	3.0	6.0	4.5	2.5	3.5
26	12.0	4.0	7.5	9.5	7.0	8.0	8.5	5.5	6.5	4.5	3.0	4.0
27	7.5	2.5	5.0	10.5	7.0	8.5	9.0	5.0	6.5	4.0	3.0	3.5
28	7.0	4.5	6.0	12.5	6.5	9.0	7.5	4.0	6.0	4.0	2.5	3.0
29	6.5	4.5	5.5	13.0	6.0	9.0	8.0	5.5	6.5	3.5	3.0	3.0
30	6.0	4.0	5.0	12.5	6.5	9.5	7.5	3.0	5.5	3.0	2.5	2.5
31	---	---	---	13.0	7.0	10.0	8.0	4.5	6.0	---	---	---
MONTH	12.0	0.0	4.2	14.5	2.5	8.2	14.0	3.0	7.4	8.5	0.0	4.2

15565447 YUKON RIVER AT PILOT STATION

LOCATION.--Lat 61°56′04″, long 162°52′50″, in SW$^1/_4$ SE$^1/_4$ sec. 5, T.21 N., R.74 W. (Marshall D-3 quad), Hydrologic Unit 19040805, on the right bank, .2 mi downstream from village of Pilot Station, 2.4 mi downstream from Atchuelinguk River, and 19 mi upstream from Andreafsky River.

DRAINAGE AREA.--321,000 mi^2 approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to September 1996, April 2001 to current year.

REVISED RECORDS.--WRD-AK-99-1: 1998.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above sea level from topographic map.

REMARKS.--Records good, except for July 8 to July 13 and July 24 to Aug. 20, which are fair and estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e290000	e130000	e70000	e55000	e48000	e44000	e38000	e48000	761000	407000	308000	375000
2	e280000	e120000	e70000	e55000	e48000	e44000	e38000	e53000	750000	396000	307000	380000
3	e280000	e120000	e70000	e55000	e48000	e44000	e38000	e57000	735000	389000	307000	384000
4	e290000	e120000	e65000	e55000	e48000	e42000	e38000	e63000	718000	382000	307000	386000
5	e280000	e120000	e65000	e55000	e48000	e42000	e38000	e70000	701000	375000	307000	387000
6	e270000	e110000	e65000	e55000	e48000	e42000	e38000	e81000	682000	368000	310000	389000
7	e260000	e110000	e65000	e55000	e48000	e42000	e38000	e93000	663000	360000	312000	391000
8	e250000	e110000	e65000	e55000	e48000	e42000	e38000	e105000	640000	354000	312000	391000
9	e240000	e110000	e65000	e55000	e46000	e42000	e38000	e117000	619000	352000	311000	389000
10	e230000	e100000	e65000	e55000	e46000	e42000	e38000	e136000	602000	348000	315000	385000
11	e220000	e100000	e60000	e55000	e46000	e42000	e38000	e151000	586000	346000	319000	381000
12	e210000	e100000	e60000	e50000	e46000	e42000	e38000	e169000	569000	345000	322000	379000
13	e210000	e100000	e60000	e50000	e46000	e40000	e38000	e184000	550000	344000	325000	377000
14	e200000	e95000	e60000	e50000	e46000	e40000	e38000	e220000	532000	346000	327000	375000
15	e200000	e95000	e60000	e50000	e46000	e40000	e38000	e250000	515000	345000	323000	373000
16	e190000	e95000	e60000	e50000	e46000	e40000	e38000	e290000	497000	344000	320000	371000
17	e190000	e90000	e60000	e50000	e46000	e40000	e38000	e330000	481000	343000	316000	373000
18	e180000	e90000	e60000	e50000	e44000	e40000	e38000	e370000	466000	343000	310000	374000
19	e180000	e90000	e60000	e50000	e44000	e40000	e38000	e430000	454000	340000	304000	375000
20	e170000	e85000	e60000	e50000	e44000	e40000	e38000	e501000	447000	336000	298000	375000
21	e170000	e85000	e60000	e50000	e44000	e40000	e38000	e577000	443000	331000	295000	376000
22	e160000	e85000	e60000	e50000	e44000	e40000	e38000	e647000	441000	328000	292000	377000
23	e160000	e85000	e55000	e50000	e44000	e40000	e38000	e745000	442000	324000	293000	377000
24	e150000	e85000	e55000	e50000	e44000	e40000	e38000	e829000	443000	322000	294000	377000
25	e150000	e80000	e55000	e50000	e44000	e40000	e40000	e870000	442000	321000	298000	376000
26	e150000	e80000	e55000	e50000	e44000	e40000	e40000	e884000	438000	319000	306000	372000
27	e140000	e75000	e55000	e50000	e44000	e40000	e42000	e865000	434000	317000	319000	366000
28	e140000	e75000	e55000	e48000	e44000	e40000	e44000	842000	429000	313000	336000	367000
29	e140000	e75000	e55000	e48000	---	e38000	e46000	814000	423000	310000	350000	368000
30	e130000	e70000	e55000	e48000	---	e38000	e47000	800000	416000	308000	360000	371000
31	e130000	---	e55000	e48000	---	e38000	---	782000	---	309000	368000	---
TOTAL	6240000	2885000	1880000	1597000	1282000	1264000	1171000	12373000	16319000	10665000	9771000	11337000
MEAN	201300	96170	60650	51520	45790	40770	39030	399100	544000	344000	315200	377900
MAX	290000	130000	70000	55000	48000	44000	47000	884000	761000	407000	368000	391000
MIN	130000	70000	55000	48000	44000	38000	38000	48000	416000	308000	292000	366000
AC-FT	12380000	5722000	3729000	3168000	2543000	2507000	2323000	24540000	32370000	21150000	19380000	22490000
CFSM	0.63	0.30	0.19	0.16	0.14	0.13	0.12	1.24	1.69	1.07	0.98	1.18
IN.	0.72	0.33	0.22	0.19	0.15	0.15	0.14	1.43	1.89	1.24	1.13	1.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	252000	126800	75880	61500	53110	48080	46110	272600	582900	450500	394400	360200
MAX	335900	188800	94840	76000	65360	56770	55000	501700	844600	563500	515800	481300
(WY)	1991	1987	1986	1986	1994	1980	1989	1991	1985	1992	1981	1994
MIN	170600	72500	50000	50000	38380	35160	38430	100200	364400	314000	315000	252700
(WY)	1979	1989	1988	1988	1984	1984	1976	1985	1978	1996	1990	1976

\# See Period of Record, partial years used in monthly statistics
e Estimated

15565447 YUKON RIVER AT PILOT STATION—Continued

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1976 - 2002#	
ANNUAL TOTAL	76784000			
ANNUAL MEAN	210400		226600	
HIGHEST ANNUAL MEAN			253700	1994
LOWEST ANNUAL MEAN			185300	1978
HIGHEST DAILY MEAN	884000	May 26	ae1100000	Jun 5 1985
LOWEST DAILY MEAN	b38000	Mar 29	c35000	Feb 23 1984
ANNUAL SEVEN-DAY MINIMUM	38000	Mar 29	35000	Feb 23 1984
MAXIMUM PEAK FLOW	882000	May 28	d1070000	Jun 9 1985
MAXIMUM PEAK STAGE	d27.03	May 28	d27.50	Jun 9 1985
MAXIMUM PEAK STAGE			f36.25	May 25 1989
ANNUAL RUNOFF (AC-FT)	152300000		164200000	
ANNUAL RUNOFF (CFSM)	0.66		0.71	
ANNUAL RUNOFF (INCHES)	8.90		9.59	
10 PERCENT EXCEEDS	441000		500000	
50 PERCENT EXCEEDS	110000		130000	
90 PERCENT EXCEEDS	40000		47000	

See Period of Record, partial years used in monthly statistics
a Jun. 5-8, 1985
b Mar. 29 to Apr 24
c Feb. 23 to Mar. 27, 1984
d Not determined. See highest daily mean
e Estimated
f Backwater from ice

15565447 YUKON RIVER AT PILOT STATION—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954-1956, 1975-96 AND April 2001 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: 1976 and 1978, (seasonal).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
APR 2002								
02...	1710	1350	325	6.9	.0	778	2.4	16
02...	1800	1100	326	6.9	.0	778	2.5	17
02...	1815	700	327	6.9	.0	778	2.4	16
02...	1855	1550	323	7.0	.0	778	2.4	16
02...	1900	1750	321	6.9	.0	778	2.4	16
JUN								
12...	1505	2450	140	7.6	13.5	773	8.9	84
12...	1513	2100	141	7.6	13.5	773	8.8	83
12...	1520	1800	143	7.6	13.5	773	8.7	82
12...	1530	1450	143	7.7	13.5	773	8.6	81
12...	1535	950	143	7.6	13.5	773	8.6	81
JUL								
16...	0858	625	219	7.9	16.0	763	9.8	99
16...	0904	1140	219	7.9	16.0	763	9.7	98
16...	0908	1480	219	7.8	16.0	763	9.7	98
16...	0910	1740	219	7.8	16.0	763	9.7	98
16...	0913	2000	214	7.8	16.0	763	9.7	98
SEP								
24...	1745	600	221	7.9	8.0	760	11.0	93
24...	1746	1100	221	7.9	8.0	760	11.0	93
24...	1748	1500	221	7.9	8.0	760	10.9	92
24...	1750	1900	219	7.9	8.0	760	11.0	93
24...	1751	2200	218	7.9	8.0	760	10.9	92

Date	BARIUM SED. SUSP. UG/G) (29820)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM SED. SUSP. (UG/G) (29822)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM SED. SUSP. (UG/G) (29826)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM SED. SUSP. (UG/G) (29829)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT SEDI- MENT SUSP. (UG/G) (35031)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER SED. SUSP. (UG/G) (29832)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
APR													
02...	970	82	1	<.06	11	2.1	E.03	210	<.8	15	.25	89	.8
JUN													
12...	940	38	2	<.06	E6	.5	.05	110	<.8	17	.11	33	5.0
20...	920	42	2	<.06	E5	.4	E.03	100	<.8	17	.09	34	3.3
JUL													
01...	980	39	2	<.06	E6	.4	E.02	110	<.8	19	.09	40	3.3
16...	1000	42	2	<.06	7	.4	E.04	110	<.8	21	.12	51	2.6
AUG													
08...	1000	52	2	<.06	14	.5	E.02	110	<.8	23	.08	57	2.1
SEP													
24...	1000	39	2	<.06	E6	.5	.04	100	<.8	18	.12	41	2.7

Date	TEMPER- ATURE WATER (DEG C) (00010)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB- ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB- ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
APR													
02...	.0	9.7	.053	.038	778	2.5	17	160	45.3	10.4	3.36	155	1.35
JUN													
12...	13.5	76	.369	.280	773	8.7	84	73	22.3	4.25	1.46	51	1.14
20...	17.5	78	.291	.218	764	8.0	83	79	22.9	5.23	1.95	66	1.14
JUL													
01...	16.5	79	.272	.203	764	8.6	87	93	27.0	6.21	2.11	69	1.16
16...	16.0	230	.165	.120	763	9.7	98	93	26.6	6.47	2.26	79	1.14
AUG													
08...	19.0	--	.107	.077	760	9.0	97	110	30.1	7.41	2.84	80	1.61
SEP													
24...	8.0	7.6	.187	.138	760	11.0	93	110	30.1	8.19	2.59	74	1.00

15565447 YUKON RIVER AT PILOT STATION—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L) (39036)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
APR													
02...	188	.0	154	160	26.4	.98	.2	11.6	200	193	E.002	.163	.125
JUN													
12...	61	.0	50	--	14.4	.56	E.08	4.57	107	79	E.002	.046	E.011
20...	79	.0	65	--	19.5	.72	E.08	5.10	114	96	E.002	.055	<.015
JUL													
01...	83	.0	68	--	22.9	.62	E.06	5.97	119	107	E.002	.056	<.015
16...	93	.0	76	--	28.4	1.23	E.11	5.53	142	118	E.002	.079	<.015
AUG													
08...	98	.0	80	--	31.1	.77	.12	6.22	140	129	E.002	.079	<.015
SEP													
24...	90	.0	74	--	31.6	.69	E.10	7.11	137	126	E.002	.087	<.015

Date	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	NITROGEN, TOTAL, SEDIMNT SUSP, (WEIGHT PERCNT) (62845)	PHOSPHORUS SEDIMENT SUSP. PERCENT (30292)	ALUMINUM SED,SUS PERCENT (30221)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY SED. SUSP. (UG/G) (29816)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC SED. SUSP. (UG/G) (29818)	ARSENIC DISSOLVED (UG/L AS AS) (01000)
APR													
02...	.22	.16	.023	E.002	<.007	--	.350	2.8	<1	2.6	<.05	120	.3
JUN													
12...	.70	.41	.22	.014	<.007	.10	.090	6.9	18	1.5	.26	13	.8
20...	.59	.24	.27	.011	E.005	<.10	.090	6.9	15	1.5	.27	13	1.0
JUL													
01...	E.44	.19	E.183	.011	E.005	.13	.100	7.2	13	2.0	.27	15	.9
16...	.46	.13	.35	.008	E.004	.10	.100	7.8	44	2.1	.29	18	.8
AUG													
08...	.44	.10	.47	.005	<.007	<.10	.100	8.1	16	2.2	.39	18	.9
SEP													
24...	.35	.17	.026	.007	<.007	--	.090	7.2	11	1.6	.23	15	.8

Date	BARIUM SED. SUSP. (UG/G) (29820)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM SED. SUSP. (UG/G) (29822)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM SED. SUSP. (UG/G) (29826)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM SED. SUSP. (UG/G) (29829)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT SEDIMENT SUSP. (UG/G) (35031)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER SED. SUSP. (UG/G) (29832)	COPPER, DISSOLVED (UG/L AS CU) (01040)
APR													
02...	970	82	1	<.06	11	2.1	E.03	210	<.8	15	.25	89	.8
JUN													
12...	940	38	2	<.06	E6	.5	.05	110	<.8	17	.11	33	5.0
20...	920	42	2	<.06	E5	.4	E.03	100	<.8	17	.09	34	3.3
JUL													
01...	980	39	2	<.06	E6	.4	E.02	110	<.8	19	.09	40	3.3
16...	1000	42	2	<.06	7	.4	E.04	110	<.8	21	.12	51	2.6
AUG													
08...	1000	52	2	<.06	14	.5	E.02	110	<.8	23	.08	57	2.1
SEP													
24...	1000	39	2	<.06	E6	.5	.04	100	<.8	18	.12	41	2.7

Date	IRON SEDIMENT SUSP. PERCENT (30269)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD SED. SUSP. (UG/G) (29836)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM SEDIMENT SUSP. (UG/G) (35050)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE SED. SUSP. (UG/G) (29839)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY SED. SUSP. (UG/G) (29841)	MOLYBDENUM SED. SUSP. (UG/G) (29843)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL SED. SUSP. (UG/G) (29845)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
APR													
02...	19	51	47	<.08	13	2.8	1600	162	--	9	.8	89	1.39
JUN													
12...	3.9	279	18	.29	30	1.7	810	15.1	.06	2	1.6	51	1.58
20...	4.0	320	16	.31	28	1.7	850	9.9	.05	1	.7	48	1.20
JUL													
01...	4.5	238	18	.14	34	2.1	910	6.6	.05	2	.7	54	1.22
16...	5.0	115	21	.32	42	2.6	940	4.9	.07	2	.9	52	1.53
AUG													
08...	5.2	24	19	E.06	40	3.1	960	2.4	.08	2	1.0	55	.75
SEP													
24...	4.3	125	16	.09	34	2.5	890	6.9	.07	2	.9	57	2.21

15565447 YUKON RIVER AT PILOT STATION—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SELENIUM SED. SUSP. (UG/G) (29847)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER SED. SUSP. (UG/G) (29850)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM SEDIMENT SUSP. (UG/G) (35040)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	THALLIUM SUS SED (UG/G) (49955)	TITANIUM SEDIMENT SUSP. PERCENT (30317)	VANADIUM SED. SUSP. (UG/G) (29853)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC SED. SUSP. (UG/G) (29855)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	URANIUM SEDIMENT SUSP. (UG/G) (35046)
APR													
02...	3	.3	<.5	<1	260	188	<250	.230	100	.8	360	3	<250
JUN													
12...	M	<.3	<.5	<1	220	80.1	<50	.460	130	.9	110	1	<50
20...	M	.3	<.5	<1	240	88.4	<50	.470	130	.9	110	1	<50
JUL													
01...	M	.4	<.5	<1	230	99.1	<50	.470	140	.7	130	1	<50
16...	M	.4	M	<1	240	105	<50	.460	150	.9	130	3	<50
AUG													
08...	M	E.2	<.5	<1	260	135	<50	.460	160	1.4	130	1	<50
SEP													
24...	M	.4	<.5	<1	250	118	<50	.450	140	.7	120	2	<50

Date	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)	TRITIUM IN WATER MOLECULES (TU) (07012)	TRITIUM WATER MOLECULES COUNT ERROR (TU) (07013)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, INORGANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC PARTICULATE TOTAL (MG/L AS C) (00689)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON SED. SUSP. PERCENT (30244)	CARBON, ORGANIC SUSPENDED, TOTAL PERCENT (50465)	NITROGEN, PARTICULTE WAT FLT SUSP (MG/L AS N) (49570)	SEDIMENT SUSP., FLOW-THROUGH CENTRIF (MG/L) (50279)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
APR													
02...	.89	11.9	.5	2.3	<.1	.4	.4	--	--	.04	2	3.0	310
JUN													
12...	.36	9.1	.4	10.6	<.1	1.3	1.4	1.4	1.4	.11	283	342	526000
20...	.47	9.7	.4	7.8	<.1	2.9	3.0	1.4	1.2	.16	260	269	324000
JUL													
01...	.54	10.6	.4	7.3	<.1	1.3	1.3	1.5	1.3	.07	--	--	
16...	.69	10.8	.4	4.5	.7	4.5	5.2	1.6	1.1	.28	363	344	320000
AUG													
08...	.84	11.0	.7	3.5	2.7	3.9	6.7	1.7	.9	.26	494	502	430000
SEP													
24...	.67	11.3	.7	6.0	<.1	2.7	2.7	1.6	1.3	.16	190	200	198000

15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET

LOCATION.--Lat 63°56'06", long 160°18'18", in NW1/4 NE1/4 sec. 18, T.18 S., R.8 W. (Unalakleet D-3 quad), Hydrologic Unit 19050102, on the right bank, 3.5 mi upstream from mouth of the Chiroskey River, 28 mi upstream from mouth, 15 mi east of Unalakleet.

DRAINAGE AREA.--1,048 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 to September 1999 (no winter record), October 1999 to current year.

REVISED RECORDS.--WRD-AK-99-1: 1998.

GAGE.--Water-stage recorder. Elevation of gage is 40 ft above sea level from topographic map.

REMARKS.--Records good, except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1270	e600	e250	e160	e130	e120	e110	e140	3000	898	1040	666
2	1240	e600	e250	e160	e130	e120	e110	e140	2770	868	996	655
3	1210	e550	e240	e160	e130	e120	e110	e150	2760	895	958	653
4	1230	e550	e240	e160	e130	e120	e110	e160	2910	973	923	683
5	1370	e500	e230	e160	e130	e120	e110	e180	2770	1030	892	838
6	1420	e500	e230	e160	e130	e120	e110	e200	2470	1120	861	1070
7	1420	e480	e220	e150	e130	e120	e110	e220	2260	1160	835	1370
8	1390	e480	e220	e150	e130	e120	e110	e240	2100	1120	814	1750
9	1360	e460	e220	e150	e130	e120	e110	e270	1980	1120	803	1770
10	1330	e440	e210	e150	e130	e120	e110	e300	1890	1110	804	1750
11	1260	e420	e210	e150	e130	e120	e110	e350	1820	1110	811	2000
12	e1200	e420	e210	e150	e130	e120	e110	e400	1800	1100	794	2640
13	e1200	e400	e200	e150	e130	e120	e110	e450	1780	1080	765	3630
14	e1100	e380	e200	e150	e130	e120	e110	e550	1740	1100	740	4700
15	e1100	e380	e200	e150	e130	e120	e110	e650	1610	1140	723	4350
16	e1000	e360	e190	e150	e130	e120	e110	e800	1530	1120	730	3730
17	e1000	e360	e190	e150	e130	e120	e110	e1000	1470	1080	766	3210
18	e950	e360	e190	e140	e130	e120	e110	e1300	1410	1080	838	2820
19	e950	e340	e190	e140	e130	e120	e110	e1700	1350	1060	896	2530
20	e900	e340	e180	e140	e130	e120	e110	e2500	1270	1030	905	2290
21	e900	e320	e180	e140	e130	e120	e110	e4000	1210	997	867	2110
22	e850	e320	e180	e140	e130	e120	e110	e6000	1140	967	822	1970
23	e850	e300	e180	e140	e130	e120	e110	e10000	1080	950	781	1860
24	e800	e300	e170	e140	e130	e120	e110	e17000	1040	942	755	1780
25	e800	e290	e170	e140	e120	e120	e120	e16600	1010	941	735	1720
26	e750	e280	e170	e140	e120	e120	e120	16400	1010	972	721	1660
27	e700	e280	e170	e140	e120	e120	e120	14800	1040	1010	712	1690
28	e700	e270	e170	e140	e120	e115	e130	12700	998	1140	706	2060
29	e650	e270	e170	e140	---	e110	e130	7640	964	1210	701	3660
30	e650	e260	e160	e140	---	e110	e130	5050	939	1150	691	5310
31	e600	---	e160	e140	---	e110	---	3750	---	1080	679	---
TOTAL	32150	11810	6150	4570	3600	3685	3390	125640	51121	32553	25064	66925
MEAN	1037	393.7	198.4	147.4	128.6	118.9	113.0	4053	1704	1050	808.5	2231
MAX	1420	600	250	160	130	120	130	17000	3000	1210	1040	5310
MIN	600	260	160	140	120	110	110	140	939	868	679	653
AC-FT	63770	23430	12200	9060	7140	7310	6720	249200	101400	64570	49710	132700
CFSM	0.99	0.38	0.19	0.14	0.12	0.11	0.11	3.87	1.63	1.00	0.77	2.13
IN.	1.14	0.42	0.22	0.16	0.13	0.13	0.12	4.46	1.81	1.16	0.89	2.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1224	521.8	243.2	151.7	121.6	108.3	110.8	2399	3627	1595	2834	2786
MAX	1471	685	279	154	129	119	115	4053	8788	2467	5690	3890
(WY)	2001	2001	2001	2000	2002	2002	2000	2002	2001	2001	1998	1998
MIN	1037	394	198	147	116	98.2	105	1182	1216	562	809	1385
(WY)	2002	2002	2002	2002	2001	2001	2001	2001	1997	1997	2002	1999

\# See Period of Record
e Estimated

15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002#	
ANNUAL TOTAL	579802		366658			
ANNUAL MEAN	1588		1005		1318	
HIGHEST ANNUAL MEAN					1656	2001
LOWEST ANNUAL MEAN					1005	2002
HIGHEST DAILY MEAN	19600	Jun 8	17000	May 24	19600	Jun 8 2001
LOWEST DAILY MEAN	a95	Mar 21	b110	Mar 29	a95	Mar 21 2001
ANNUAL SEVEN-DAY MINIMUM	95	Mar 21	110	Mar 29	95	Mar 21 2001
MAXIMUM PEAK FLOW			c		d19700	Jun 8 2001
MAXIMUM PEAK STAGE					98.41	Jun 8 2001
MAXIMUM PEAK STAGE			f99.58	May 23	f99.58	May 23 2002
ANNUAL RUNOFF (AC-FT)	1150000		727300		955000	
ANNUAL RUNOFF (CFSM)	1.52		0.96		1.26	
ANNUAL RUNOFF (INCHES)	20.58		13.01		17.09	
10 PERCENT EXCEEDS	3370		1920		3100	
50 PERCENT EXCEEDS	400		420		550	
90 PERCENT EXCEEDS	100		120		110	

\# See Period of Record
a From Mar. 21 to Apr. 10
b From Mar. 29 to Apr. 24
c Not determined. See Highest Daily Mean
d From rating curve extended above 8800 ft^3/s
f Backwater from ice

15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982-83, 1998 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1998 to current year.

INSTRUMENTATION.--Electronic water-temperature recorder set for one-hour recording interval.

REMARKS.-- Records represent water temperature at the sensor within 0.5°C. Temperature was compared with the stream average by cross section on June 18 and September 24. No variation was found within the cross sections. The variation found between mean stream temperature and sensor temperature was less than 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 14.5°C, July 11,12 2000 and July 19, August. 2,3, 2002 ; minimum, 0.0°C, many days during winter and spring breakup periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 14.5°C, July 19, August 2,3; minimum, 0.0°C, many days during fall, winter and spring breakup periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC-ATION, CROSS SECTION (FT FM R BK) (72103)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)
JUN							
18...	1400	252	235.0	87.65	1400	12.0	27.0
18...	1401	252	155.0	87.65	1400	12.0	27.0
18...	1402	252	65.0	87.65	1400	12.0	27.0
18...	1403	252	35.0	87.65	1400	12.0	27.0
18...	1404	252	15.0	87.65	1400	12.0	27.0
SEP							
24...	1301	250	6.0	88.18	1720	4.8	10.0
24...	1303	250	36.0	88.18	1720	4.8	10.0
24...	1305	250	76.0	88.18	1720	4.8	10.0
24...	1307	250	156.0	88.18	1720	4.8	10.0
24...	1309	250	226.0	88.18	1720	4.8	10.0

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3.0	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3.0	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	5.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	5.5	5.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	5.5	4.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	4.5	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	3.5	3.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	3.0	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	2.0	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	5.5	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

15565700 UNALAKLEET RIVER ABOVE CHIROSKEY RIVER NEAR UNALAKLEET—Continued

WATER TEMPERATURE, (DEGREES CELSIUS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.5
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5	1.5
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.5	1.5
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.0	2.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	2.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	2.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	2.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	2.0	3.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0	3.5
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.0	4.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	4.0	4.5
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	4.5	4.5
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	5.0	5.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	5.5	5.5
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.0	5.5
29	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.0	5.5
30	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	5.5	4.5	5.0
31	---	---	---	0.0	0.0	0.0	---	---	---	5.0	4.5	5.0
MONTH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	2.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.5	5.0	5.5	11.0	9.5	10.5	14.0	12.0	12.5	8.0	7.5	8.0
2	6.5	6.0	6.0	10.5	10.0	10.0	14.5	12.5	13.5	8.0	7.5	7.5
3	6.0	5.5	6.0	10.5	9.0	9.5	14.5	13.0	13.5	8.0	7.5	7.5
4	7.0	5.5	6.0	10.0	9.0	9.0	13.5	12.0	13.0	8.0	7.5	7.5
5	7.5	6.0	7.0	9.0	8.5	8.5	13.5	11.5	12.5	8.0	7.5	7.5
6	8.0	7.0	7.5	9.0	7.5	8.0	13.0	11.5	12.5	8.5	8.0	8.0
7	7.5	6.5	7.0	9.0	8.5	8.5	12.0	10.5	11.5	8.5	7.5	8.0
8	6.5	5.5	6.0	9.0	8.5	8.5	11.5	10.0	10.5	8.0	7.0	7.5
9	7.0	6.0	6.5	9.0	8.0	8.5	10.5	10.0	10.5	7.5	6.5	7.0
10	7.0	6.5	7.0	11.0	8.5	10.0	10.5	9.0	10.0	6.5	6.0	6.5
11	8.5	6.5	7.0	11.0	9.5	10.5	11.0	9.0	10.0	7.0	6.0	6.5
12	9.0	7.5	8.0	10.5	10.0	10.0	11.0	9.5	10.0	6.5	6.0	6.5
13	9.0	8.0	8.5	10.0	9.5	10.0	10.5	9.0	9.5	6.0	5.5	6.0
14	9.5	8.0	8.5	10.5	9.5	10.0	10.0	8.5	9.5	6.0	6.0	6.0
15	11.0	8.5	9.5	11.5	9.5	10.5	9.5	9.5	9.5	6.0	5.5	6.0
16	12.0	10.0	11.0	11.5	10.5	11.0	9.5	9.0	9.0	6.0	5.5	5.5
17	12.5	10.5	11.5	13.5	10.5	12.0	9.0	8.5	9.0	5.5	5.0	5.0
18	13.0	11.0	12.0	14.0	12.0	13.0	9.5	8.5	9.0	5.0	4.0	4.5
19	13.0	11.5	12.0	14.5	12.5	13.5	9.0	8.5	9.0	4.0	3.5	4.0
20	12.5	11.0	11.5	14.0	12.0	13.0	9.5	8.0	9.0	4.0	3.0	3.5
21	12.0	10.5	11.0	13.5	11.5	12.5	10.0	8.0	9.0	3.5	2.5	3.0
22	11.5	9.5	10.5	13.0	12.0	12.0	9.5	8.0	9.0	4.0	3.0	3.0
23	11.0	10.0	10.5	12.5	11.0	11.5	9.5	7.5	8.5	4.5	3.5	3.5
24	11.0	8.5	10.0	12.0	11.5	11.5	9.5	7.5	8.5	5.5	4.5	5.0
25	10.5	9.0	9.5	11.5	10.5	11.0	8.5	8.0	8.5	6.0	5.0	5.5
26	10.0	8.5	9.0	10.5	10.0	10.0	8.5	7.5	8.0	6.5	6.0	6.0
27	11.5	8.5	10.0	11.0	9.5	10.5	9.0	7.5	8.0	6.5	6.0	6.0
28	11.0	10.0	10.5	12.0	10.0	11.0	9.0	7.5	8.5	6.0	6.0	6.0
29	10.0	8.5	9.0	12.0	11.0	11.5	9.5	8.0	8.5	6.0	5.5	5.5
30	10.5	8.0	9.5	12.5	11.0	11.5	9.0	7.0	8.0	5.5	4.5	5.0
31	---	---	---	13.0	11.0	12.0	8.5	7.5	8.0	---	---	---
MONTH	13.0	5.0	8.8	14.5	7.5	10.6	14.5	7.0	9.9	8.5	2.5	5.9

15744500 KOBUK RIVER NEAR KIANA

LOCATION.--Lat 66°58′25″, long 160°07′51″, in NW$\frac{1}{4}$ SE$\frac{1}{4}$ sec. 11, T. 18 N., R. 7 W.(Selawik D-3 quad), Northwest Arctic Borough, Hydrologic Unit 19050304, on left bank, 5.8 mi upstream from Portage Creek, 9.7 mi upstream from Squirrel River, and 7.8 mi east of Kiana.

DRAINAGE AREA.--9,520 mi^2, approximately.

PERIOD OF RECORD.--September 1976 to current year.

REVISED RECORDS.--WDR AK-81-1: 1977 (M), 1978, 1979-80 (M), WDR AK-93-1: 1992.

GAGE.--Water-stage recorder. Elevation of gage is 35 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14200	e7500	e3400	e2400	e2000	e1900	e1800	e2000	45900	12600	9550	7110
2	13800	e7000	e3400	e2400	e2000	e1800	e1800	e2100	36200	12500	9190	6930
3	13500	e7000	e3300	e2400	e2000	e1800	e1800	e2200	32200	13200	8750	6770
4	13500	e6500	e3200	e2300	e2000	e1800	e1800	e2300	31900	14500	8300	6570
5	14700	e6500	e3200	e2300	e2000	e1800	e1800	e2500	31500	14800	7900	6880
6	16500	e6200	e3100	e2300	e2000	e1800	e1800	e3000	30800	14900	7450	7960
7	18900	e6000	e3000	e2300	e2000	e1800	e1800	e4000	31200	14300	7180	12100
8	19600	e6000	e3000	e2300	e2000	e1800	e1800	e5000	31000	14600	7060	18000
9	18800	e5800	e2900	e2200	e2000	e1800	e1800	e6000	32100	17400	7010	20900
10	18000	e5600	e2900	e2200	e2000	e1800	e1800	e8000	33600	21900	6870	23500
11	e17000	e5500	e2900	e2200	e1900	e1800	e1800	e11000	34000	24700	6720	24500
12	e16000	e5400	e2800	e2200	e1900	e1800	e1800	e15000	33100	22800	6600	24000
13	e16000	e5300	e2800	e2200	e1900	e1800	e1800	e19000	30800	20400	6430	24700
14	e15000	e5100	e2800	e2200	e1900	e1800	e1800	e22000	28100	18600	6440	33300
15	e14000	e5000	e2700	e2200	e1900	e1800	e1700	e24000	26800	17200	6510	43000
16	e14000	e4900	e2700	e2200	e1900	e1800	e1700	e25000	25100	16300	6600	44300
17	e13000	e4700	e2700	e2100	e1900	e1800	e1700	e27000	23400	15400	6940	46700
18	e12000	e4600	e2600	e2100	e1900	e1800	e1700	e40000	22500	14400	9520	46400
19	e12000	e4500	e2600	e2100	e1900	e1800	e1700	e60000	21300	13400	10700	41800
20	e11000	e4400	e2600	e2100	e1900	e1800	e1700	79300	19800	12700	10700	36600
21	e11000	e4300	e2600	e2100	e1900	e1800	e1700	101000	18700	12600	9950	32300
22	e10000	e4200	e2600	e2100	e1900	e1800	e1700	137000	17100	13600	9270	28900
23	e10000	e4100	e2600	e2100	e1900	e1800	e1700	137000	15900	14500	8820	26500
24	e9500	e4000	e2500	e2100	e1900	e1800	e1700	131000	16100	14600	8240	24400
25	e9500	e3900	e2500	e2100	e1900	e1800	e1700	129000	19300	14000	7730	22500
26	e9000	e3800	e2500	e2100	e1900	e1800	e1800	131000	18600	12800	7290	21100
27	e8500	e3700	e2500	e2000	e1900	e1800	e1800	131000	17100	11800	6960	20400
28	e8500	e3600	e2500	e2000	e1900	e1800	e1800	122000	15500	11100	6850	20400
29	e8000	e3600	e2400	e2000	---	e1800	e1900	101000	14100	10500	6770	21800
30	e8000	e3500	e2400	e2000	---	e1800	e1900	79200	13100	10100	6770	24000
31	e7500	---	e2400	e2000	---	e1800	---	61000	---	9800	7020	---
TOTAL	401000	152200	86100	67300	54200	55900	53100	1619600	766800	462000	242090	724320
MEAN	12940	5073	2777	2171	1936	1803	1770	52250	25560	14900	7809	24140
MAX	19600	7500	3400	2400	2000	1900	1900	137000	45900	24700	10700	46700
MIN	7500	3500	2400	2000	1900	1800	1700	2000	13100	9800	6430	6570
AC-FT	795400	301900	170800	133500	107500	110900	105300	3212000	1521000	916400	480200	1437000
CFSM	1.36	0.53	0.29	0.23	0.20	0.19	0.19	5.49	2.68	1.57	0.82	2.54
IN.	1.57	0.59	0.34	0.26	0.21	0.22	0.21	6.33	3.00	1.81	0.95	2.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13870	5440	3427	2603	2148	1899	1853	25140	46000	21150	30270	28210
MAX	29870	11050	6097	3965	2868	2600	3703	52250	87010	40130	78210	78190
(WY)	1994	1994	1994	1994	1994	1980	1980	2002	1989	1980	1994	1986
MIN	5003	2750	1926	1606	1331	1116	1000	1635	19690	9032	7809	9542
(WY)	1997	1981	1982	1982	1984	1984	1984	1992	1997	1997	2002	1996

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1976 - 2002#	
ANNUAL TOTAL	6020900		4684610			
ANNUAL MEAN	16500		12830		15260	
HIGHEST ANNUAL MEAN					24960	1994
LOWEST ANNUAL MEAN					10020	1977
HIGHEST DAILY MEAN	130000	Jun 9	a137000	May 22	155000	Jun 5 1992
LOWEST DAILY MEAN	b1900	Apr 21	c1700	Apr 15	d1000	Apr 1 1984
ANNUAL SEVEN-DAY MINIMUM	1900	Apr 21	1700	Apr 15	1000	Apr 1 1984
MAXIMUM PEAK FLOW			146000	May 22	161000	Jun 4 1992
MAXIMUM PEAK STAGE			60.39	May 22	f62.94	Jun 1 1989
MAXIMUM PEAK STAGE					g64.26	Jun 1 1989
ANNUAL RUNOFF (AC-FT)	11940000		9292000		11060000	
ANNUAL RUNOFF (CFSM)	1.73		1.35		1.60	
ANNUAL RUNOFF (INCHES)	23.53		18.31		21.78	
10 PERCENT EXCEEDS	43300		28400		41000	
50 PERCENT EXCEEDS	3800		6000		5400	
90 PERCENT EXCEEDS	2000		1800		1700	

\# See Period of Record; partial years used in monthly statistics
a From May 22-23
b From Apr. 21 to May 14
c From Apr. 15 to Apr. 25
d From Apr. 1 to May 14, 1984
e Estimated
f From flood marks
g Backwater from ice

15746900 WULIK RIVER ABOVE FERRIC CREEK NEAR KIVALINA

LOCATION.--Lat 68°04′42″, long 163°11′15″, in NW¼ sec. 23, T. 31 N., R. 20 W. (DeLong Mts A-2 quad), Northwest Arctic Borough, Hydrologic Unit 19050404, on left bank 0.7 mi upstream from Ferric Creek, 9 miles west of Red Dog Mine site, and 43 miles northeast of Kivalina.

DRAINAGE AREA.--191 mi^2.

PERIOD OF RECORD.-- July 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 500 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	e8.5	e0.80	e0.20	e0.00	e0.00	e0.00	e0.20	e500	287	71	621
2	163	e8.0	e0.80	e0.20	e0.00	e0.00	e0.00	e0.20	e700	553	67	536
3	147	e7.5	e0.70	e0.20	e0.00	e0.00	e0.00	e0.20	1740	342	63	737
4	126	e6.5	e0.70	e0.10	e0.00	e0.00	e0.00	e0.20	1970	229	60	1780
5	125	e6.0	e0.70	e0.10	e0.00	e0.00	e0.00	e0.20	2040	181	57	3810
6	123	e5.5	e0.60	e0.10	e0.00	e0.00	e0.00	e0.20	1480	169	54	2980
7	e90	e5.0	e0.60	e0.10	e0.00	e0.00	e0.00	e0.20	893	179	53	3190
8	e82	e4.6	e0.50	e0.10	e0.00	e0.00	e0.00	e0.20	1570	229	50	2460
9	e74	e4.4	e0.50	e0.10	e0.00	e0.00	e0.00	e0.20	1760	547	50	1570
10	e66	e4.0	e0.50	e0.10	e0.00	e0.00	e0.00	e0.20	2230	641	46	1290
11	e60	e3.6	e0.50	e0.10	e0.00	e0.00	e0.00	e0.20	2010	448	43	1040
12	e55	e3.4	e0.40	e0.10	e0.00	e0.00	e0.00	e0.20	1460	378	40	810
13	e50	e3.2	e0.40	e0.10	e0.00	e0.00	e0.00	e0.20	1100	383	37	672
14	e45	e2.9	e0.40	e0.10	e0.00	e0.00	e0.00	e0.20	834	321	37	582
15	e41	e2.7	e0.40	e0.10	e0.00	e0.00	e0.00	e0.20	773	281	127	757
16	e38	e2.5	e0.40	e0.10	e0.00	e0.00	e0.00	e0.20	754	266	527	975
17	e34	e2.3	e0.30	e0.10	e0.00	e0.00	e0.00	e0.30	1080	247	332	798
18	e30	e2.1	e0.30	e0.10	e0.00	e0.00	e0.00	e0.70	1100	220	244	617
19	e27	e1.9	e0.30	e0.10	e0.00	e0.00	e0.00	e4.0	679	193	188	478
20	e25	e1.8	e0.30	e0.10	e0.00	e0.00	e0.00	e15	367	207	156	359
21	e23	e1.7	e0.30	e0.10	e0.00	e0.00	e0.00	e70	250	241	129	346
22	e21	e1.5	e0.30	e0.10	e0.00	e0.00	e0.00	e250	551	348	107	266
23	e20	e1.4	e0.20	e0.10	e0.00	e0.00	e0.10	e1000	610	325	94	237
24	e18	e1.4	e0.20	e0.10	e0.00	e0.00	e0.10	e3200	340	261	83	226
25	e17	e1.3	e0.20	e0.00	e0.00	e0.00	e0.10	e4400	295	203	74	221
26	e15	e1.2	e0.20	e0.00	e0.00	e0.00	e0.20	e4800	393	164	182	208
27	e14	e1.1	e0.20	e0.00	e0.00	e0.00	e0.20	e3400	422	135	2390	197
28	e12	e1.0	e0.20	e0.00	e0.00	e0.00	e0.20	e2100	301	114	4210	188
29	e11	e0.90	e0.20	e0.00	---	e0.00	e0.20	e950	258	97	2060	185
30	e10	e0.90	e0.20	e0.00	---	e0.00	e0.20	e650	204	86	1120	272
31	e9.5	---	e0.20	e0.00	---	e0.00	---	e550	---	78	801	---
TOTAL	1718.5	98.80	12.50	2.70	0.00	0.00	1.30	21393.20	28664	8353	13552	28408
MEAN	55.44	3.293	0.403	0.087	0.000	0.000	0.043	690.1	955.5	269.5	437.2	946.9
MAX	163	8.5	0.80	0.20	0.00	0.00	0.20	4800	2230	641	4210	3810
MIN	9.5	0.90	0.20	0.00	0.00	0.00	0.00	0.20	204	78	37	185
MED	38	2.6	0.40	0.10	0.00	0.00	0.00	0.20	764	241	83	619
AC-FT	3410	196	25	5.4	0.00	0.00	2.6	42430	56860	16570	26880	56350
CFSM	0.29	0.02	0.00	0.00	0.00	0.00	0.00	3.61	5.00	1.41	2.29	4.96
IN.	0.33	0.02	0.00	0.00	0.00	0.00	0.00	4.17	5.58	1.63	2.64	5.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	54.69	16.46	6.065	2.765	1.868	1.482	1.280	359.1	1267	383.7	851.9	767.4
MAX	59.7	29.6	11.7	5.44	3.74	2.96	2.52	690	1576	567	1147	947
(WY)	2002	2001	2001	2001	2001	2001	2001	2002	2001	2001	2000	2002
MIN	49.7	3.29	0.40	0.087	0.000	0.000	0.043	28.1	959	270	437	421
(WY)	2001	2002	2002	2002	2002	2002	2002	2001	2002	2002	2002	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	110732.10		102204.00			
ANNUAL MEAN	303.4		280.0		293.3	
HIGHEST ANNUAL MEAN					306	2001
LOWEST ANNUAL MEAN					281	2002
HIGHEST DAILY MEAN	4840	Aug 13	4800	May 26	4840	Aug 13 2001
LOWEST DAILY MEAN	a0.20	Dec 23	b0.00	Jan 25	0.00	Jan 25 2002
ANNUAL SEVEN-DAY MINIMUM	0.20	Dec 23	0.00	Jan 25	0.00	Jan 25 2002
MAXIMUM PEAK FLOW			6520	May 25	6520	May 25 2002
MAXIMUM PEAK STAGE			c53.68	May 25	c53.68	May 25 2002
ANNUAL RUNOFF (AC-FT)	219600		202700		212500	
ANNUAL RUNOFF (CFSM)	1.59		1.47		1.54	
ANNUAL RUNOFF (INCHES)	21.57		19.91		20.87	
10 PERCENT EXCEEDS	942		799		862	
50 PERCENT EXCEEDS	5.5		2.3		12	
90 PERCENT EXCEEDS	1.3		0.00		0.00	

\# See Period of Record, partial years used in monthly statistics
a From Dec.23-31
b From Jan.25 to Apr.22
c From floodmarks
e Estimated

15746991 IKALUKROK CREEK BELOW RED DOG CREEK NEAR KIVALINA

LOCATION.--Lat 68°02′51″, long 163°01′34″, in NE$^1/_4$ NW$^1/_4$ sec.33, T.31 N., R.19 W.(Delong Mountains A-2 quad) Northwest Arctic Borough, Hydrologic Unit 19050404, on left bank about 3.5 mi downstream from the mouth of Red Dog Creek, 2.5 mi upstream from the mouth of Dudd Creek, and 45 mi northeast of Kivalina.

DRAINAGE AREA.--98.6 mi^2.

PERIOD OF RECORD.--June 1995 to current year (no winter record).

GAGE.--Water-stage recorder. Elevation of gage is 650 ft above sea level, from topographic map. Prior to June 1, 1998 at site 1 mi upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Runoff from 3.6 mi^2 is impounded in tailings ponds and released intermittently at a maximum rate of 25 ft^3/s. Meteor-burst telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, undetermined, July 25, 1996; gage height, 12.22 ft, at site and datum then in use.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 2390 ft^3/s, September 5, gage height, 10.98 ft; minimum not determined, occurs during the winter.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e100	---	---	---	---	---	---	---	e150	145	52	281
2	e110	---	---	---	---	---	---	---	e230	257	53	251
3	e105	---	---	---	---	---	---	---	e400	161	51	452
4	e100	---	---	---	---	---	---	---	e500	124	48	951
5	e90	---	---	---	---	---	---	---	e460	112	46	1880
6	e80	---	---	---	---	---	---	---	e360	103	46	1460
7	e70	---	---	---	---	---	---	---	308	98	45	1620
8	e65	---	---	---	---	---	---	---	447	117	42	1130
9	e58	---	---	---	---	---	---	---	537	326	44	787
10	e52	---	---	---	---	---	---	---	535	329	40	672
11	e48	---	---	---	---	---	---	---	482	232	34	554
12	e44	---	---	---	---	---	---	---	367	209	29	456
13	e38	---	---	---	---	---	---	---	336	240	28	401
14	e36	---	---	---	---	---	---	---	253	189	25	405
15	e32	---	---	---	---	---	---	---	240	162	143	598
16	e29	---	---	---	---	---	---	---	247	152	210	570
17	e26	---	---	---	---	---	---	---	301	140	119	474
18	e24	---	---	---	---	---	---	---	329	129	93	390
19	e22	---	---	---	---	---	---	---	217	117	77	302
20	e20	---	---	---	---	---	---	---	144	108	66	224
21	e18	---	---	---	---	---	---	---	125	96	61	202
22	e16	---	---	---	---	---	---	---	213	88	58	175
23	e14	---	---	---	---	---	---	---	192	95	54	153
24	e12	---	---	---	---	---	---	---	149	81	51	145
25	e11	---	---	---	---	---	---	---	141	74	47	142
26	e10	---	---	---	---	---	---	---	148	66	180	154
27	e8.0	---	---	---	---	---	---	---	144	63	897	158
28	e7.0	---	---	---	---	---	---	---	113	60	1580	139
29	e6.0	---	---	---	---	---	---	---	91	57	877	130
30	e5.0	---	---	---	---	---	---	---	102	55	481	190
31	e4.0	---	---	---	---	---	---	---	---	55	348	---
TOTAL	1260.0	---	---	---	---	---	---	---	8261	4240	5925	15446
MEAN	40.6	---	---	---	---	---	---	---	275	137	191	515
MAX	110	---	---	---	---	---	---	---	537	329	1580	1880
MIN	4.0	---	---	---	---	---	---	---	91	55	25	130
AC-FT	2500	---	---	---	---	---	---	---	16390	8410	11750	30640
CFSM	0.43	---	---	---	---	---	---	---	2.89	1.43	2.00	5.40
IN.	0.49	---	---	---	---	---	---	---	3.22	1.65	2.31	6.02

e Estimated

15747000 WULIK RIVER BELOW TUTAK CREEK NEAR KIVALINA

LOCATION.--Lat 67°52'34", long 163°40'28", in NW$^1/_4$ sec. 34, T. 29 N., R. 22 W. (Noatak D-4 quad), Northwest Arctic Borough, Hydrologic Unit 19050404, on left bank 0.1 mi downstream from Tutak Creek and 25 mi northeast of Kivalina.

DRAINAGE AREA.--705 mi^2.

PERIOD OF RECORD.--September 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 175 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. GOES satellite telemetry at station. Flow from 2.8 square miles of the drainage basin is regulated by a tailings dam at the Red Dog Mine site. Up to 25 ft^3/s of the flow at the gage may be discharge from Red Dog Mine during the summer period.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	465	e95	e44	e30	e25	e22	e21	e22	1580	598	302	2060
2	425	e90	e44	e30	e25	e22	e21	e22	2000	1170	291	1730
3	484	e90	e44	e30	e24	e22	e21	e22	3260	1110	280	2090
4	496	e85	e42	e30	e24	e22	e21	e22	3960	799	270	4060
5	509	e80	e42	e29	e24	e22	e21	e22	4280	650	261	13400
6	550	e80	e40	e29	e24	e22	e20	e22	3500	574	250	11400
7	471	e75	e40	e29	e24	e22	e20	e22	2040	533	245	e11000
8	372	e75	e40	e28	e24	e22	e20	e22	2790	553	238	e8000
9	e350	e70	e39	e28	e24	e22	e20	e22	3410	1120	240	e5400
10	e340	e70	e39	e28	e24	e22	e20	e22	3930	2120	242	e4200
11	e300	e70	e38	e28	e24	e22	e20	e23	4070	1530	228	e3000
12	e280	e65	e38	e28	e23	e21	e20	e23	3160	1190	217	e2400
13	e260	e65	e37	e28	e23	e21	e20	e23	2380	1150	208	e2000
14	e240	e60	e37	e27	e23	e21	e20	e23	1950	1010	203	e1900
15	e220	e60	e36	e27	e23	e21	e20	e23	1610	855	311	e2200
16	e210	e60	e36	e27	e23	e21	e20	e24	1530	760	1190	e2500
17	e200	e55	e36	e27	e23	e21	e20	e26	1970	703	1030	e2200
18	e180	e55	e35	e27	e23	e21	e20	e45	2090	646	758	e1800
19	e170	e55	e35	e27	e23	e21	e20	e120	1820	588	621	e1500
20	e160	e55	e34	e26	e23	e21	e20	e200	1060	555	538	e1200
21	e160	e55	e34	e26	e23	e21	e20	e500	769	561	486	e1100
22	e150	e50	e34	e26	e23	e21	e20	e1200	809	637	442	e950
23	e140	e50	e33	e26	e23	e21	e20	e2800	1540	634	410	e850
24	e140	e50	e33	e26	e23	e21	e20	e6000	971	606	381	e800
25	e130	e48	e32	e26	e22	e21	e20	e12500	770	532	359	e800
26	e120	e48	e32	e25	e22	e21	e21	16800	802	472	384	e750
27	e120	e46	e32	e25	e22	e21	e21	13600	868	424	3540	e700
28	e110	e46	e32	e25	e22	e21	e21	7570	743	382	9670	e700
29	e110	e46	e31	e25	---	e21	e22	3770	620	354	6160	e750
30	e100	e44	e31	e25	---	e21	e22	2410	554	335	3510	e850
31	e100	---	e31	e25	---	e21	---	1950	---	317	2520	---
TOTAL	8062	1893	1131	843	653	662	612	69850	60836	23468	35785	92290
MEAN	260.1	63.10	36.48	27.19	23.32	21.35	20.40	2253	2028	757.0	1154	3076
MAX	550	95	44	30	25	22	22	16800	4280	2120	9670	13400
MIN	100	44	31	25	22	21	20	22	554	317	203	700
AC-FT	15990	3750	2240	1670	1300	1310	1210	138500	120700	46550	70980	183100
CFSM	0.37	0.09	0.05	0.04	0.03	0.03	0.03	3.20	2.88	1.07	1.64	4.36
IN.	0.43	0.10	0.06	0.04	0.03	0.03	0.03	3.69	3.21	1.24	1.89	4.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	532.3	136.6	62.83	35.51	24.27	18.84	16.27	1865	3167	1697	2859	1729
MAX	1542	290	111	70.0	49.3	39.5	38.8	4856	6669	6144	8458	3102
(WY)	1994	1994	1986	1986	1986	1991	1991	1993	1989	1989	1994	2002
MIN	207	63.1	34.2	21.5	12.0	9.10	9.00	20.6	1372	424	496	386
(WY)	1997	2002	1988	1992	1992	1992	1992	1989	1988	1999	1991	1991

15747000 WULIK RIVER BELOW TUTAK CREEK NEAR KIVALINA—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1985 - 2002	
ANNUAL TOTAL	370367		296085			
ANNUAL MEAN	1015		811.2		1017	
HIGHEST ANNUAL MEAN					1843	1994
LOWEST ANNUAL MEAN					530	1987
HIGHEST DAILY MEAN	21100	Aug 13	16800	May 26	29400	Aug 17 1994
LOWEST DAILY MEAN	a23	May 9	b20	Apr 6	c9.0	Apr 30 1985
ANNUAL SEVEN-DAY MINIMUM	23	May 9	20	Apr 6	9.0	Apr 30 1985
MAXIMUM PEAK FLOW			20600	May 26	38500	Aug 17 1994
MAXIMUM PEAK STAGE			10.18	May 26	12.21	Aug 17 1994
MAXIMUM PEAK STAGE					d13.5	May 16 1999
ANNUAL RUNOFF (AC-FT)	734600		587300		736600	
ANNUAL RUNOFF (CFSM)	1.44		1.15		1.44	
ANNUAL RUNOFF (INCHES)	19.54		15.62		19.60	
10 PERCENT EXCEEDS	3110		2100		2890	
50 PERCENT EXCEEDS	65		55		120	
90 PERCENT EXCEEDS	29		21		15	

\# See Period of Record
a From May 9-15
b From Apr. 6-25
c From Apr. 30 to May 10, 1985, and Mar. 4 to May 17, 1992
d From floodmarks, backwater from snow and ice
e Estimated

15798700 NUNAVAK CREEK NEAR BARROW

LOCATION.--Lat 71°15′35″, long 156°46′57″, in SE$^1/_4$ sec. 18, T. 22 N., R. 18 W.(Barrow B-4 quad), North Slope Borough, Hydrologic Unit 19060202, 0.7 mi downstream from Emaiksoun Lake, 1.2 mi upstream from Nunavak Bay, and 2.3 mi south of Barrow Post Office.

DRAINAGE AREA.--2.79 mi^2, approximately.

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR AK-76-1: 1972.

GAGE.--Water-stage recorder. Elevation of gage is 19 ft above sea level, from topographic map. Prior to May 29, 1982, at site 10 ft downstream at datum about 29.6 ft higher.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.10	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e4.6	2.5	0.17	e0.00
2	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e7.3	2.7	0.13	e0.00
3	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e7.2	2.4	0.12	0.10
4	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	6.3	2.1	0.10	0.22
5	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	6.5	1.8	0.10	0.49
6	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	7.1	1.7	0.10	0.30
7	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	7.1	1.7	0.10	0.18
8	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	7.2	1.3	0.10	0.15
9	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	6.9	1.1	0.10	0.15
10	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	6.4	0.83	e0.00	0.26
11	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	6.0	0.74	e0.00	0.94
12	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	5.5	0.63	e0.00	0.55
13	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	5.1	0.54	e0.00	0.36
14	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	3.5	0.52	e0.00	0.35
15	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	3.6	0.53	4.8	0.31
16	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	4.5	0.51	1.2	0.27
17	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	4.0	0.44	0.19	0.25
18	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	3.5	0.38	0.13	0.34
19	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	3.1	0.34	0.12	0.52
20	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	3.6	0.30	0.10	0.56
21	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	3.4	0.28	0.10	2.4
22	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	3.4	0.28	0.10	0.99
23	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e14	3.6	0.26	e0.00	5.9
24	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e13	3.3	0.23	e0.00	1.0
25	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e16	2.7	0.23	e0.00	0.32
26	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e18	2.6	0.22	e0.00	0.32
27	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e12	4.1	0.18	e0.00	0.35
28	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e0.00	e3.7	3.5	0.17	e0.00	0.34
29	e0.00	e0.00	e0.00	e0.00	---	e0.00	e0.00	e3.0	2.9	0.15	e0.00	0.59
30	e0.00	e0.00	e0.00	e0.00	---	e0.00	e0.00	e3.3	2.5	0.14	e0.00	0.33
31	e0.00	---	e0.00	e0.00	---	e0.00	---	e2.2	---	0.17	e0.00	---
TOTAL	0.10	0.00	0.00	0.00	0.00	0.00	0.00	85.20	141.0	25.37	7.76	18.84
MEAN	0.003	0.000	0.000	0.000	0.000	0.000	0.000	2.748	4.700	0.818	0.250	0.628
MAX	0.10	0.00	0.00	0.00	0.00	0.00	0.00	18	7.3	2.7	4.8	5.9
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.5	0.14	0.00	0.00
AC-FT	0.2	0.00	0.00	0.00	0.00	0.00	0.00	169	280	50	15	37
CFSM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99	1.68	0.29	0.09	0.23
IN.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14	1.88	0.34	0.10	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.278	8.401	2.004	0.878	1.012
MAX	0.22	0.000	0.000	0.000	0.000	0.000	0.000	3.55	17.3	9.93	6.79	8.34
(WY)	1980	1972	1972	1972	1972	1972	1972	1990	1999	1981	1994	1986
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.73	0.091	0.001	0.000
(WY)	1972	1972	1972	1972	1972	1972	1972	1972	1992	1983	1983	1975

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1972 - 2002	
ANNUAL TOTAL	409.40		278.27			
ANNUAL MEAN	1.122		0.762		1.044	
HIGHEST ANNUAL MEAN					2.26	1989
LOWEST ANNUAL MEAN					0.26	1992
HIGHEST DAILY MEAN	70	Jun 14	18	May 26	110	Jun 14 1994
LOWEST DAILY MEAN	a0.00	Jan 1	b0.00	Oct 2	c0.00	Oct 1 1971
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 2	0.00	Oct 1 1971
MAXIMUM PEAK FLOW			19	May 25	131	Jun 10 1980
MAXIMUM PEAK STAGE			fg33.67	May 21	g34.36	Jun 11 1994
ANNUAL RUNOFF (AC-FT)	812		552		756	
ANNUAL RUNOFF (CFSM)	0.40		0.27		0.37	
ANNUAL RUNOFF (INCHES)	5.46		3.71		5.08	
10 PERCENT EXCEEDS	1.7		2.9		2.0	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a From Jan. 1 to Jun. 9 and Oct. 2 to Dec. 31
b From Oct. 2 to May 22, Aug. 10-14 23-31, and Sept. 1-2
c No flow during winter months and at times during summer months
d At site and datum then in use, flow over snow.
e Estimated
f Maximum observed but may have been higher prior to gage startup, May 21-23
g Backwater from snow and ice

15896000 KUPARUK RIVER NEAR DEADHORSE

LOCATION.--Lat 70°16′54″, long 148°57′35″, in NE¼ sec. 25, T. 11 N., R. 12 E. (Beechey Point B-4 quad), North Slope Borough, Hydrologic Unit 19060401, on right bank, 1.8 mi northeast of SE Eileen State No. 1, 2.1 mi south of Frontier Service City Camp, 10 mi upstream from mouth on Gwyder Bay, 3 miles upstream of the Spine Road, and 13 mi northwest of Deadhorse.

DRAINAGE AREA.--3,130 mi^2.

PERIOD OF RECORD.--June 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is at sea level (levels by private engineering firm).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Winter low flow may be discontinuous as the flow probably varies significantly along the main stem of the river due to the formation of aufeis in the vicinity of springs. Flow may cease at other points. GOES satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e800	e80	e10	e0.0	e0.0	e0.0	e0.0	e0.0	4380	3340	387	3150
2	e750	e75	e9.0	e0.0	e0.0	e0.0	e0.0	e0.0	4580	3430	360	2980
3	e700	e70	e9.0	e0.0	e0.0	e0.0	e0.0	e0.0	4070	3610	340	2750
4	e650	e65	e8.0	e0.0	e0.0	e0.0	e0.0	e0.0	3310	3750	322	2490
5	e600	e60	e7.0	e0.0	e0.0	e0.0	e0.0	e0.0	3120	3490	302	2350
6	e540	e55	e7.0	e0.0	e0.0	e0.0	e0.0	e0.0	3210	3210	295	2200
7	e500	e55	e6.0	e0.0	e0.0	e0.0	e0.0	e0.0	3250	2760	284	2220
8	e460	e50	e6.0	e0.0	e0.0	e0.0	e0.0	e0.0	2750	2410	279	2450
9	e430	e46	e5.0	e0.0	e0.0	e0.0	e0.0	e0.0	2350	2720	275	3490
10	e390	e43	e4.0	e0.0	e0.0	e0.0	e0.0	e0.0	1920	3260	282	5480
11	e360	e40	e4.0	e0.0	e0.0	e0.0	e0.0	e0.0	1640	2810	301	5910
12	e340	e37	e3.0	e0.0	e0.0	e0.0	e0.0	e0.0	1450	2320	297	5400
13	e310	e35	e3.0	e0.0	e0.0	e0.0	e0.0	e0.0	1250	1980	307	4730
14	e290	e33	e3.0	e0.0	e0.0	e0.0	e0.0	e0.0	1100	1670	347	4210
15	e270	e31	e3.0	e0.0	e0.0	e0.0	e0.0	e0.0	1000	1440	571	3820
16	e250	e28	e2.0	e0.0	e0.0	e0.0	e0.0	e0.0	1280	1480	4340	3500
17	e230	e26	e2.0	e0.0	e0.0	e0.0	e0.0	e0.0	2030	1490	23300	3130
18	e210	e24	e2.0	e0.0	e0.0	e0.0	e0.0	e0.0	2050	1330	33600	2880
19	e200	e22	e1.0	e0.0	e0.0	e0.0	e0.0	e0.0	1700	1140	21500	2850
20	e180	e21	e1.0	e0.0	e0.0	e0.0	e0.0	e0.0	1410	1010	14100	3100
21	e170	e19	e1.0	e0.0	e0.0	e0.0	e0.0	e500	1130	903	10800	3240
22	e160	e18	e1.0	e0.0	e0.0	e0.0	e0.0	e5000	990	801	8900	3110
23	e150	e17	e0.0	e0.0	e0.0	e0.0	e0.0	e25000	992	716	7330	2830
24	e140	e16	e0.0	e0.0	e0.0	e0.0	e0.0	e50000	1560	677	6220	2600
25	e130	e15	e0.0	e0.0	e0.0	e0.0	e0.0	e45000	4080	651	5320	2350
26	e120	e14	e0.0	e0.0	e0.0	e0.0	e0.0	e36000	4670	596	4710	2140
27	e110	e13	e0.0	e0.0	e0.0	e0.0	e0.0	18100	3700	600	4020	1990
28	e110	e12	e0.0	e0.0	e0.0	e0.0	e0.0	10600	2940	582	3560	1920
29	e100	e11	e0.0	e0.0	---	e0.0	e0.0	7790	2500	537	3230	2630
30	e90	e10	e0.0	e0.0	---	e0.0	e0.0	6510	2600	479	3120	5240
31	e85	---	e0.0	e0.0	---	e0.0	---	4800	---	413	3090	---
TOTAL	9825	1041	97.0	0.0	0.0	0.0	0.0	209300.0	73012	55605	162089	97140
MEAN	317	34.7	3.13	0.000	0.000	0.000	0.000	6752	2434	1794	5229	3238
MAX	800	80	10	0.0	0.0	0.0	0.0	50000	4670	3750	33600	5910
MIN	85	10	0.0	0.0	0.0	0.0	0.0	0.0	990	413	275	1920
MED	250	30	2.0	0.0	0.0	0.0	0.0	0.0	2200	1480	3090	2930
AC-FT	19490	2060	192	0.00	0.00	0.00	0.00	415100	144800	110300	321500	192700
CFSM	0.10	0.01	0.00	0.00	0.00	0.00	0.00	2.16	0.78	0.57	1.67	1.03
IN.	0.12	0.01	0.00	0.00	0.00	0.00	0.00	2.49	0.87	0.66	1.93	1.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)#

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	235	20.8	2.67	0.99	0.97	0.97	0.97	1693	10470	1117	1747	1567
MAX	692	174	24.3	10.0	10.0	10.0	10.0	8877	26360	3169	5229	4863
(WY)	1978	1973	1973	1972	1972	1972	1972	1996	1982	1999	2002	1997
MIN	10.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	726	300	127	192
(WY)	1975	1977	1977	1976	1976	1975	1975	1975	1990	1971	1990	1974

15896000 KUPARUK RIVER NEAR DEADHORSE—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002#	
ANNUAL TOTAL	512231.0		608109.0			
ANNUAL MEAN	1403		1666		1388	
HIGHEST ANNUAL MEAN					2304	1982
LOWEST ANNUAL MEAN					658	1974
HIGHEST DAILY MEAN	55000	Jun 10	50000	May 24	100000	Jun 7 1978
LOWEST DAILY MEAN	a0.0	Jan 1	b0.0	Dec 23	c0.0	Mar 1 1975
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Dec 23	0.00	Mar 1 1975
MAXIMUM PEAK FLOW			d		118000	Jun 7 1978
MAXIMUM PEAK STAGE			f36.58	May 23	37.60	Jun 7 1978
ANNUAL RUNOFF (AC-FT)	1016000		1206000		1005000	
ANNUAL RUNOFF (CFSM)	0.45		0.53		0.44	
ANNUAL RUNOFF (INCHES)	6.09		7.23		6.02	
10 PERCENT EXCEEDS	2290		3650		2780	
50 PERCENT EXCEEDS	7.0		22		10	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

\# See Period of Record, partial years used in monthly statistics
a From Jan. 1 to Jun. 5
b From Dec. 23 to May 20
c No flow during winter months
d Not determined, occurred during period of backwater from ice and snow, see highest daily mean
e Estimated
f From Floddmarks, backwater from snow and ice

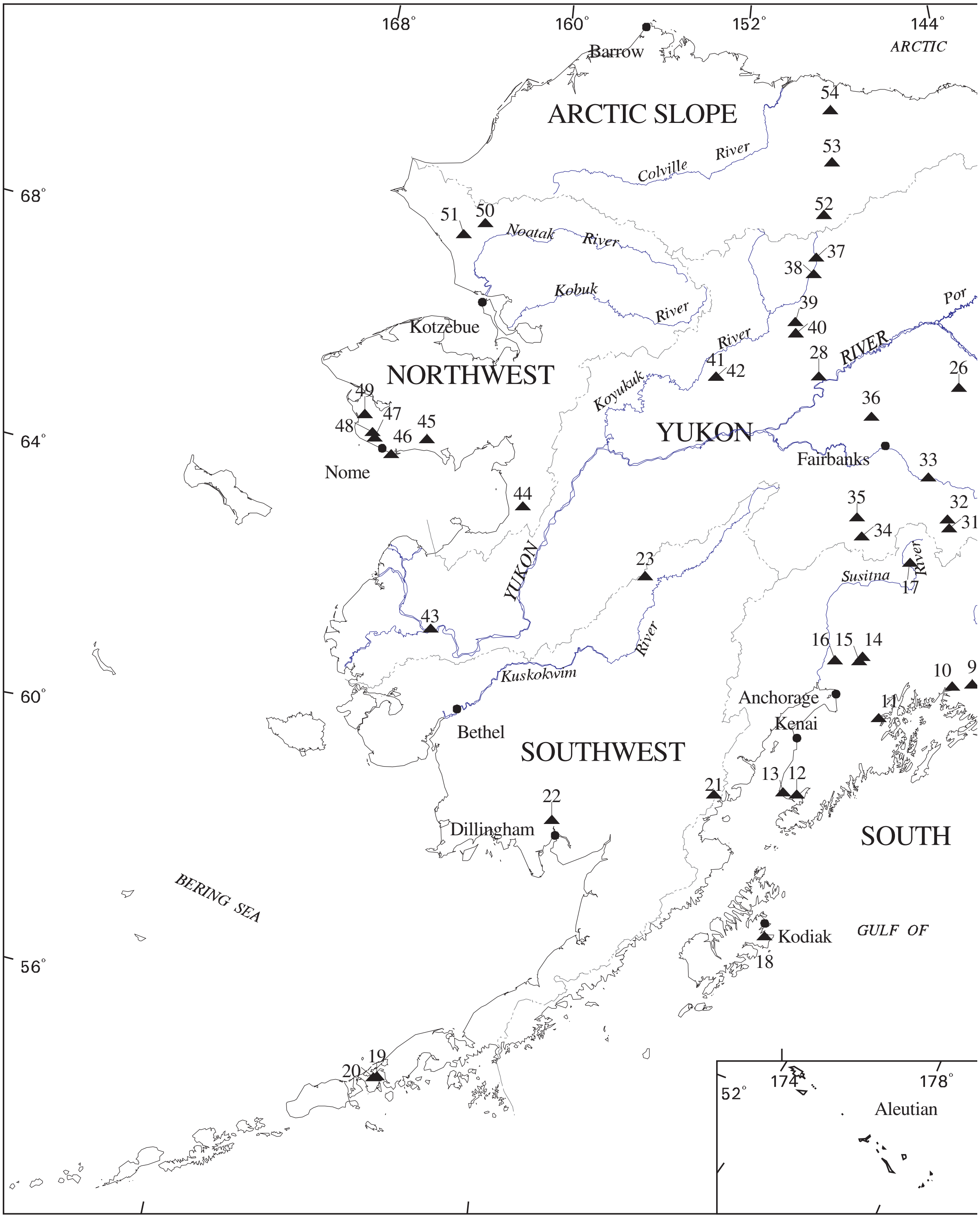
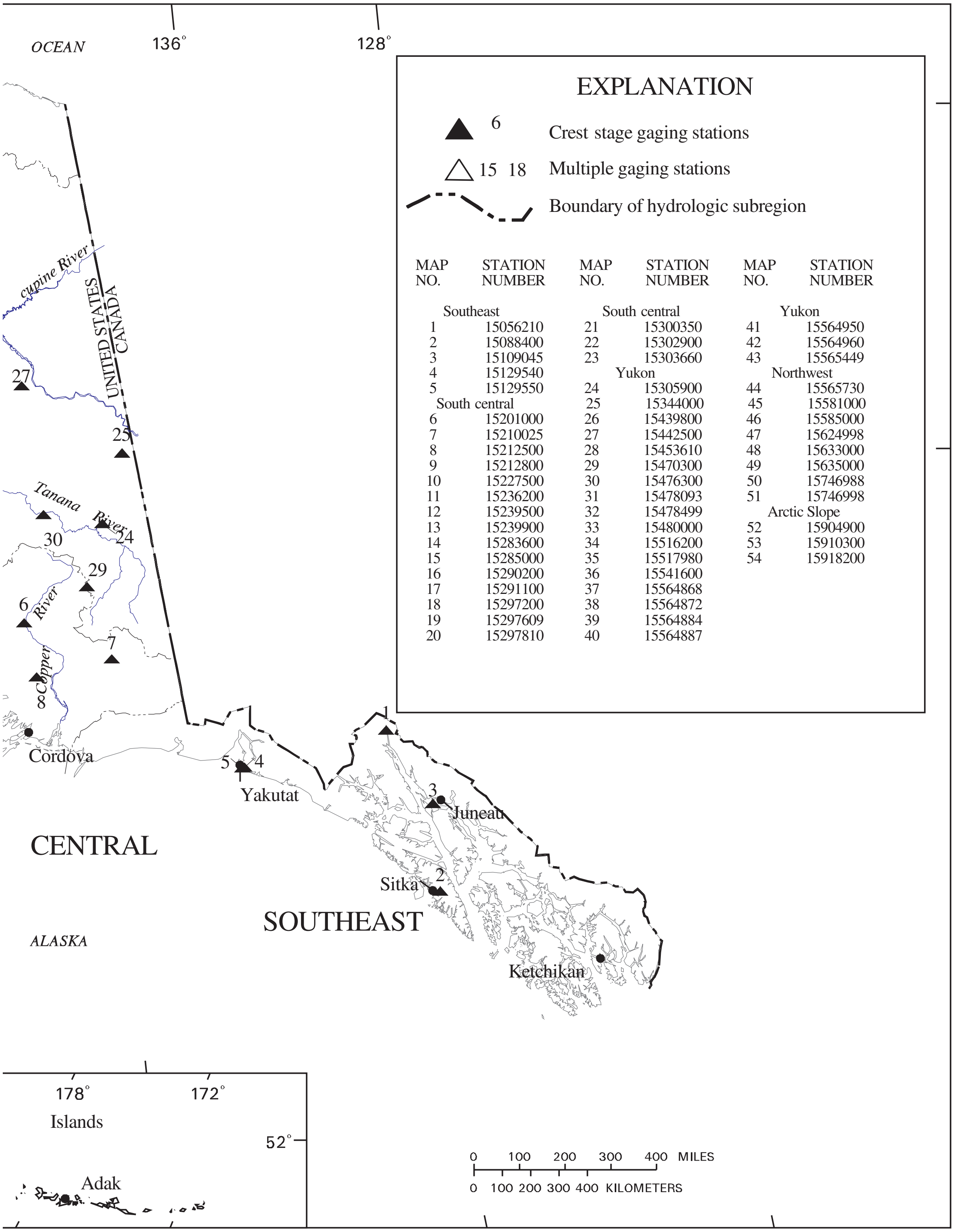


Figure 2. Locations of crest-stage partial-record stations.



MAP NO.	STATION NUMBER	MAP NO.	STATION NUMBER	MAP NO.	STATION NUMBER
Southeast		South central		Yukon	
1	15056210	21	15300350	41	15564950
2	15088400	22	15302900	42	15564960
3	15109045	23	15303660	43	15565449
4	15129540	Yukon		Northwest	
5	15129550	24	15305900	44	15565730
South central		25	15344000	45	15581000
6	15201000	26	15439800	46	15585000
7	15210025	27	15442500	47	15624998
8	15212500	28	15453610	48	15633000
9	15212800	29	15470300	49	15635000
10	15227500	30	15476300	50	15746988
11	15236200	31	15478093	51	15746998
12	15239500	32	15478499	Arctic Slope	
13	15239900	33	15480000	52	15904900
14	15283600	34	15516200	53	15910300
15	15285000	35	15517980	54	15918200
16	15290200	36	15541600		
17	15291100	37	15564868		
18	15297200	38	15564872		
19	15297609	39	15564884		
20	15297810	40	15564887		

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records of partial-record stations are presented in the table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a second table.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. The maximum discharge for each water year is given. The maximum discharge for the current water year and the maximum for the period of record are presented in the table below. However, at some stations the maximum discharge from spring runoff and from rainfall are shown by the symbols S/ and R/, respectively. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
			SOUTHEAST ALASKA					
Taiya River near Skagway (15056210)	Lat 59°30′43″, long 135°20′40″, in NE1/4 SE1/4 sec. 22, T. 27 S., R. 59 E. (Skagway B-1 quad), on the downstream side of highway bridge, 1.0 mi downstream from West Creek, 2.2 mi upstream from mouth, and 4 mi north of Skagway. Drainage area is 179 mi^2.	1970-78	7-23-02	19.86	b18,600	7-23-02	19.86	b18,600
Cupola Peak Creek at Bear Cove near Sitka (15088400)	Lat 57°00′39″, long 135°09′11″, in NE1/4 SE1/4 SE1/4 sec. 13, T. 56 S., R. 64 E. (Sitka A-4 quad), on Baranof Island, in the Tongass National Forest, on left bank 200 ft downstream from Green Lake road crossing, 400 ft upstream from mouth at south shore of Bear Cove in Silver Bay, and about 7.1 mi southeast of Sitka. Drainage area is 0.43 mi^2.	2000-2002	9-04-00 12-05-00 08-12-02	r17.33 r17.33 17.49	g16 g16 n	08-12-02	17.49	n

Maximum discharge at crest-stage partial-record stations--Continued
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
			SOUTHEAST ALASKA—Continued					
North Fork Peterson Creek near Auke Bay (15109045)	Lat 58°17′02″, long 134°39′49″, in SE$^{1}/_{4}$ NW$^{1}/_{4}$ SW$^{1}/_{4}$, sec. 29, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, on left bank, 300 ft upstream from mouth, 7.3 mi south of Auke Bay, and 9.5 mi west of Douglas. Drainage area is 1.59 mi^2., revised.	1997-2002	9-20-02	22.15	57.4	11-01-99 and 12-28-99	23.38	160
Drain at Airport Approach 29 near Yakutat (15129540)	Lat 59°29′42″, long 139°37′56″, in SE$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$ sec. 15, T. 28 S., R. 34 E. (Yakutat B-5 quad), at Yakutat Airport, in Tongass National Forest, on right bank, 1.5 mi upstream from Lost River, 5.5 mi southeast of Yakutat. Drainage area not determined.	2002	08-21-02	15.88	n			
Drain at Airport Approach 2 near Yakutat. (15129550)	Lat 59°29′35″, 139°41′17″, in SW$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$, sec. 17, T. 28 S., R. 34 E. (Yakutat B-5 quad), at Yakutat Airport, in Tongass National Forest, on right bank, 0.4 mi upstream from Tawah Creek, 5.3 mi southeast of Yakutat. (Drainage area not determined.)	2002	08-21-02	6.44	n			
			SOUTH-CENTRAL ALASKA					
Dry Creek near Glennallen (15201000)	Lat 62°08′49″, long 145°28′31″, in NE$^{1}/_{4}$ sec. 7, T. 4 N., R.1 W. (Gulkana A-3 quad), on left bank 135 ft upstream from culvert at mi 119 Richardson Highway and 3.3 mi north of Glennallen. Drainage area is 11.4 mi^2.	1963-2002	5-20-02 5-25-02 6-01-02	f15.82 15.56 15.56	u S/109 R/109	5- -72	d25.88	546
McCarthy Creek at McCarthy (15210025)	Lat 61°25′54″, long 142°55′02″, in NW$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$ sec. 19, T. 5 S., R. 14 E. (McCarthy B-6 quad), on right bank 1100 ft upstream from large boulder near footbridge at trail crossing at McCarthy, 0.8 mi upstream from mouth. Drainage area is 79.0 mi^2.	1994-2002	6-17-02 8-13-02	79.08 80.32	S/1,070 R/3,370	9-27-00	j80.27	e4,000

Maximum discharge at crest-stage partial-record stations--Continued
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
SOUTH-CENTRAL ALASKA—Continued								
Boulder Creek near Tiekel (15212500)	Lat 61°20′08″, long 145°18′26″, in SE1/4 SW1/4 NW1/4 sec. 19, T. 6 S., R. 1 E. (Valdez B-4 quad), on left downstream wingwall of bridge at mi 51.4 of old Richardson Highway, 0.2 mi downstream from culvert on present Richardson Highway, and 0.7 mi north of Tiekel. Drainage area is 9.80 mi².	1964-2002	5- -02 6-01-02 6-22-02	f11.31 10.44 10.31	u S/326 R/232	8-07-81	11.72	1,330
Ptarmigan Creek Tributary near Valdez (15212800)	Lat 61°08′12″, long 145°44′32″, NW1/4 NE1/4 sec 34, T. 8 S., R. 3 W. (Valdez A-5 quad), on left bank 275 ft upstream from Richardson Highway, 21 mi east of Valdez. Drainage area is 0.72 mi².	1965-70 1996-2002	5-18-02 6-15-02 8-22-02	f77.63 77.46 77.27	u S/33 R/20	9- -65	d10.82	85
Mineral Creek near Valdez (15227500)	Lat 61°08′30″, long 146°21′42″, in SW1/4 NE1/4 SE1/4 sec. 30, T. 8 S., R. 6 W. (Valdez A-7 quad), on right bank 120 ft upstream from bridge, 1.8 mi upstream from mouth, and 0.5 mi northwest of Valdez. Drainage area is 44.0 mi².	i1976-81, 1990-2002	5-18-02 8-22-02	<10.14 12.10	S/<1,060 R/2,000	6- -76	di 90.81	5,570
Shakespeare Creek at Whittier (15236200)	Lat 60°46′35″, long 148°43′35″, in NE1/4 sec. 22, T. 8 N., R. 4 E. (Seward D-5 quad), on upstream right wingwall of concrete bridge 0.5 mi upstream from mouth, and 1.8 mi west of the Alaska railroad terminal building at Whittier. Drainage area is 1.61 mi².	1970-80, 1984-2002	10-05-01 5-30-02	12.36 10.65	R/529 S/336	9-20-95	14.90	690
Fritz Creek near Homer (15239500)	Lat 59°42′30″, long 151°20′35″, in SW1/4 SW1/4 sec. 28, T. 5 S., R. 12 W. (Seldovia C-4 quad), Kenai Peninsula Borough, on right bank 25 ft downstream from culvert under East End Road, 8 mi northeast of Homer. Drainage area is 10.4 mi²	1963-85, ‡1986-92, 1993-2002	4-15-02 5-19-02 9-24-02	f11.7 11.40 10.72	u S/285 R/95	10-22-80	d18.53	852

.

Maximum discharge at crest-stage partial-record stations--Continued
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
SOUTH-CENTRAL ALASKA—Continued								
Anchor River near Anchor Point (15239900)	Lat 59°44′50″, long 151°45′11″, in NE$^{1}/_{4}$ sec. 13, T. 5 S., R. 15 W., (Seldovia C-5 quad), Kenai Peninsula Borough, on right bank at downstream side of bridge on Sterling Highway, 4.3 mi southeast of Anchor Point. Drainage area is 137 mi^2.	‡1965-73 1974 ‡1978-86 1987 ‡1991-92 2000-02	12-12-01 4-30-02 9-25-02	f5.62 5.24 4.75	u S/2,330 R/1,810	11-29-83	d7.42	6,050
Premier Creek near Sutton (15283600)	Lat 61°42′40″, long 149°05′12″, in SE$^{1}/_{4}$ NE$^{1}/_{4}$ sec. 28, T. 19 N., R. 2 E. (Anchorage C-6 quad), Matanuska-Susutna Borough, 10 ft downstream from culvert on Buffalo Mine Road, 4 mi north from of the Glenn Highway, 6 mi west of Sutton, and 7 mi northeast of Palmer. Drainage area is 3.38 mi^2.	1997-2002	 5-25-02 8-13-02	 7.14 6.99	 S/47 R/31	9-22-00 5-25-02	7.14 7.14	47 47
Wasilla Creek near Palmer (15285000)	Lat 61°38′37″, long 149°11′46″, in SE$^{1}/_{4}$ SW$^{1}/_{4}$ sec. 13, T. 18 N., R. 1 E. (Anchorage C-6 quad), Matanuska-Susitna Borough, on right bank 20 ft downstream from culverts on Wasilla Fishhook Road, and 4.1 mi northeast of Palmer. Drainage area is 16.8 mi^2.	1971, 1976-2002	4-30-02 5-29-02 8-13-02	f7.51 7.48 7.25	u S/100 R/76	8-10-71	d17.74	700
Nancy Lake Tributary near Willow (15290200)	Lat 61°41′17″, long 149°57′58″, in SE$^{1}/_{4}$ SE$^{1}/_{4}$ sec. 34, T. 19 N., R. 4 W. (Tyonek C-1 quad), Matanuska-Susitna Borough, on left bank 150 ft upstream from culvert at Parks Highway, 0.3 mi upstream from mouth and 4.5 mi southeast of Willow. Drainage area is 8.00 mi^2.	1980, 1983-87, 1989-2002	4- -02 5-22-02 8-13-02	f11.17 10.81 10.72	u S/n R/n	10-11-86	13.21	465
Raft Creek near Denali (15291100)	Lat 63°03′04″, long 147°16′22″, in SE$^{1}/_{4}$ sec. 36, T. 21 S., R. 2 E.(Healy A-1 quad), Matanuska-Susitna Borough, on right bank 30 ft upstream from culvert at mi 68.9 Denali Highway, and 10.7 mi southeast of Denali. Drainage area is 4.33 mi^2.	1963-2002	5-25-02 9-08-02	fj16.21 10.88	S/u R/93	6- -64	11.72	133

Maximum discharge at crest-stage partial-record stations--Continued
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
SOUTH-CENTRAL ALASKA—Continued								
Myrtle Creek near Kodiak (15297200)	Lat 57°36′12″, long 152°24′12″, in $NW^{1}/_{4}$ $SW^{1}/_{4}$ sec. 6, T. 30 S., R. 19 W. (Kodiak C-2 quad), Kodiak Island Borough, on left bank 0.1 mi upstream from bridge, 0.3 mi upstream from mouth, and 13 mi south of Kodiak. Drainage area is 4.74 mi^2.	‡1963-86, 1987-2002	10-04-01 3- -02 4-29-02	5.86 f6.59 4.60	R/879 u S/424	1-03-77	6.93	1,350
Stapp Creek near Cold Bay (15297609)	Lat 55°11′17″, long 162°42′47″, in $SE^{1}/_{4}$ $SE^{1}/_{4}$ $NW^{1}/_{4}$ sec. 1, T. 58 S., R. 89 W. (Cold Bay A-3 quad), Aleutians East Borough, on left bank, 0.9 mi upstream from mouth, and 1 mi. south of Cold Bay. Drainage area is 1.68 mi^2.	2001-2002	10-16-01 2- -02 5-24-02	15.05 f16.24 15.85	R/5.2 u S/34	5-24-02	15.85	34
Frosty Creek near Cold Bay (15297810)	Lat 55°09'59″, long 162°48'22″, in $SE^{1}/_{4}$ $SW^{1}/_{4}$ $SE^{1}/_{4}$ sec. 8, T. 58 S., R. 89 W. (Cold Bay A-3 quad), Aleutians East Borough, on left bank, 2.8 mi upstream from mouth, and 4.5 mi southwest of Cold Bay. Drainage area is 5.92 mi^2.	2001-2002	2- -02 5-24-02 7-23-02	f12.91 11.67 10.64	u S/411 R/146	10-24-00	11.92	497
SOUTHWEST ALASKA								
Chinkelyes Creek Tributary near Pedro Bay (15300350)	Lat 59°44′02″, long 153°48′40″, in $SE^{1}/_{4}$ $NE^{1}/_{4}$ $NE^{1}/_{4}$ sec. 23, T. 5 S., R. 27 W. (Iliamna C-3 quad), on left bank 60 ft upstream from culvert, 8 mi east of Pile Bay, and 11 mi east of Pedro Bay. Drainage area is 0.40 mi^2.	1997-2002	3- -02 5-21-02 09-24-02	f11.38 <10.93 <10.93	u S/<14.8 R/<14.8	9-18-99	13.14	144
Moody Creek at Aleknagik (15302900)	Lat 59°16′34″, long 158°35′v42″, in $SE^{1}/_{4}$ sec. 30, T. 10 S., R. 55 W. (Dillingham B-7 quad), on left bank 10 ft upstream from culvert entrance, and 500 ft upstream from mouth at Wood River at the Aleknagik Mission. Drainage area is 1.28 mi^2.	1969-73, 1975-85, 1988-2002	5-21-02 6-24-02	18.68 18.03	S/34 R/20	6-07-71	19.60	55
Gold Creek at Takotna (15303660)	Lat 62°59′20″, long 156°04′08″, in $SE^{1}/_{4}$ $SE^{1}/_{4}$ sec. 34, T. 34 N., R. 36 W. (Iditarod D-1 quad), at Takotna, on right bank, 350 ft upstream from bridge, and 400 ft upstream from mouth. Drainage area is 6.31 mi^2.	1987-2002	5-20-02 6-17-02 9-13-02	f11.26 7.01 7.51	u S36 R/71	5-16-99	8.30	131

Maximum discharge at crest-stage partial-record stations--Continued
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
YUKON ALASKA								
Dennison Fork near Tetlin Junction (15305900)	Lat 63°25′24″, long 142°29′00″, in SW$^{1}/_{4}$ sec. 14, T. 19 N., R. 15 E. (Tanacross B-3 quad), on left bank 7 ft downstream from culverts at mi 10.7 Taylor Highway, and 8.3 mi northeast of Tetlin Junction. Drainage area is 2.93 mi^2.	1964-2002	5-15-01	fgj 13.1	u	7- -64	d16.29	128
			5-24-01	fg 10.51	u			
			7-24-01	g 10.58	u			
			5-14-02	fj 12.46	u			
			6-10-02	j 10.66	eR/ 40			
King Creek near Dome Creek (15344000)	Lat 64°23′38″, long 141°24′43″, in NE$^{1}/_{4}$ SW$^{1}/_{4}$ sec. 16, T. 6 S., R. 32 E. (Eagle B-1 quad), on left bank 1,100 ft upstream from culvert at mi 119.8 Taylor Highway, 0.4 mi upstream from mouth, 4.9 mi east of Dome Creek, and 28 mi south of Eagle. Drainage area is 5.87 mi^2.	1975-82, ‡1983-90, 1991-2002	5-23-01	g 15.43	g S/51	6-13-97	j17.65	n
			7-25-01	g 16.26	gR/118			
			5-15-02	f j16.20	u			
			5-19-02	j15.00	S/30			
			9-22-02	15.46	R/53			
Boulder Creek near Central (15439800)	Lat 65°34′05″, long 144°53′13″, in NW$^{1}/_{4}$ sec. 32, T. 9 N., R. 14 E. (Circle C-2 quad), on right bank 2,000 ft upstream from bridge at mi 125.4 Steese Highway, 0.7 mi upstream from mouth, and 2.3 mi west of Central. Drainage area is 31.3 mi^2.	1964-65, ‡1966-82, 1983, ‡1984-86, 1987-2002	n	n	n	6-25-89	10.01	1,460
Quartz Creek near Central (15442500)	Lat 65°37′09″, long 144°28′55″, in SW$^{1}/_{4}$ sec. 7, T. 9 N., R. 16 E. (Circle C-1 quad), on left bank 10 ft upstream from culvert at mi 138.1 on Steese Highway, 1 mi upstream from mouth, 19 mi southwest of Circle, and 10 mi east of Central. Drainage area is 17.2 mi^2.	1967, 1969-79, 1989-2002	n	n	n	7-15-95	dj23.08	700
Ray River Tributary near Stevens Village (15453610)	Lat 65°56′57″, long 149°54′55″, in SE$^{1}/_{4}$ sec. 17, T. 13 N., R. 11 W. (Livengood D-6 quad), on right bank 10 ft upstream from culvert at mi 63.6 on the Dalton Highway, and 22 mi west of Stevens Village. Drainage area is 8.00 mi^2.	1977-2002	5-23-01	f,g,m 20.61	g 85	5- -79	d 21.10	860
			6-03-01	g 18.76	g S/150			
			8-14-01	g 16.77	g R/31			
			5-19-02	18.49	S/135			
			7-03-02	17.01	R/40			
Little Jack Creek near Nabesna (15470300)	Lat 62°32′39″, long 143°19′22″, in SW$^{1}/_{4}$ NW$^{1}/_{4}$ SE$^{1}/_{4}$ sec. 22, T. 9 N., R. 11 E. (Nabesna C-5 quad), on left bank 8 ft upstream from the culvert at mi 25.8 Nabesna Road, and 15.6 mi northeast of Nabesna (previously 0.2 mi upstream on left bank). Drainage area is 6.73 mi^2.	1975-2002	6-01-02	19.34	S/150	c7-25-01	c21.42	c254
			8-21-02	20.23	R/192			

Maximum discharge at crest-stage partial-record stations--Continued
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
YUKON ALASKA—Continued								
Berry Creek near Dot Lake (15476300)	Lat 63°41′23″, long 144°21′47″, in NW$^1/_4$ sec. 13, T. 22 N., R. 5 E. (Mt. Hayes C-1 quad), on left bank 100 ft upstream from former bridge site, at mi 1371.4 on abandoned section of Alaska Highway, 1.9 mi upstream from mouth, and 6.0 mi west of Dot Lake. Drainage area is 65.1 mi^2.	1964-71, ‡1972-81, 1982-2002	n	n	n	7-19-64	15.49	2,800
Suzy Q Creek near Pump Station 10 (15478093)	Lat 63°29′43″, long 145°51′27″, in SW$^1/_4$ sec. 29, T. 16 S., R. 10 E. (Mt. Hayes B-4 quad), on right bank 30 ft upstream from bridge at mi 224.8 on Richardson Highway, 0.1 mi upstream from mouth, and 6 mi north of Pump Station 10. Drainage area is 1.29 mi^2.	1987, 1989-2002	6-06-01 7-20-01 5-12-02 5-21-02 7-01-02	g 29.40 g 29.99 f 30.93 30.78 29.58	gS/ 18 gR/ 39 u S/ 124 R/ 12	7-14-87	33.83	1,070
Ruby Creek above Richardson Highway near Donnelly (15478499)	Lat 63°37′54″, long 145°52′14″, in NE$^1/_4$ sec. 7, T. 15 S., R. 10 E. (Mt. Hayes C-4 quad), on right bank 0.2 mi upstream from Trans-Alaska Pipeline, 0.5 mi upstream from bridge at mi 234.8 on Richardson Highway, 2.2 mi upstream from mouth, and 2.3 mi south of Donnelly. Drainage area is 4.89 mi^2.	1987-2002	5-16-01 6-06-01 9-05-01 5-12-02 5-21-02 8-21-02	f,g 17.2 f,g13.92 g14.42 d,f16.17 14.82 <13.69	u gS/ 40 gR/ 130 u S/ 225 R/ <35	7-14-87	16.95	1,660
Banner Creek at Richardson (15480000)	Lat 64°17′24″, long 146°20′56″, in SW$^1/_4$ sec. 22, T. 7 S., R. 7 E. (Big Delta B-5 quad), on left bank 400 ft upstream from bridge at mi 295.4 Richardson Highway, 0.2 mi upstream from mouth, and 0.4 mi northwest of Richardson. Drainage area is 20.2 mi^2.	1964-2002	n	n	n	6-26-89	16.38	950
Slime Creek near Cantwell (15516200)	Lat 63°30′34″, long 148°48′39″, in SE$^1/_4$ sec. 24, T. 16 S., R. 7 W. (Healy C-4 quad), on right bank 25 ft downstream from culverts at mi 219.9 George Parks Highway, and 9.1 mi northeast of Cantwell. Drainage area is 6.90 mi^2.	1966-2002	5-25-02 6-01-02 8-10-02	f18.77 17.55 17.25	u S/177 R/115	7- -67	d14.52	685

Maximum discharge at crest-stage partial-record stations--Continued

[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
			YUKON ALASKA—Continued					
Dragonfly Creek near Healy (15517980)	Lat 63°47′45″, long 148°55′19″, in SW¼ SE¼ SW¼ sec. 9, T. 13 S., R. 7 W. (Healy D-4 quad), on left bank at mi 242.6 George Parks Highway 100 ft upstream from highway bridge, and 6 mi southeast of Healy. Drainage area is 0.71 mi^2.	1990-2002	4-16-01 5-14-01 7-07-01 5-09-02 5-14-02 6-05-02	f,m41.1 f/u 36.24 f 38.89 36.21 36.90	u S/u R/9.1 u S/8.0 R/101	7-12-90	d7.59	535
Globe Creek near Livengood (15541600)	Lat 65°17′08″, long 148°07′56″, in SE¼ sec. 3, T. 5 N., R 3 W. (Livengood B-3 Quad), 0.1 mi upstream from culvert at mi 37.6 Elliot Highway, 9 mi upstream from mouth, and 19 mi southeast of Livengood. Drainage area is 23.0 mi^2.	1964-2002	n	n	n	8-12-67	17.05	1,240
Snowden Creek near Wiseman (15564868)	Lat 67°44′20″, long 149°44′24″, in SW¼ sec. 26, T. 34 N., R. 10 W. (Chandalar C-6 quad), on right bank 0.25 mi upstream from culvert at mi 213.5 of the Dalton Highway,and 24.5 mi northeast of Wiseman. Drainage area is 16.7 mi^2.	1968, d1977-79, 1992-2002	5-14-01 6-3-01 8-14-01 5-22-02 5-25-02 u	fgj23.6 g23.29 g23.26 fj22.8 22.36 u	u S/623 R/603 u S/380 R/u	1968	u	1,200
Nugget Creek near Wiseman (15564872)	Lat 67°29′25″, long 149°52′20″, in NW¼ sec. 30, T. 31 N., R. 10 W. (Chandalar B-6 quad), on left bank 1,000 ft upstream from culvert at mi 195.6 Dalton Highway, and 8.7 mi northeast of Wiseman. Drainage area is 9.47 mi^2.	d1975-88, d1990-92, 1993-2002	6-3-01 7-13-01 5-25-02 9-13-02	g 39.06 g 38.92 39.02 38.13	g S/166 g R/135 S/158 R/29	5-26-98	40.17	540
Prospect Creek near Prospect Camp (15564884)	Lat 66°46′56″, long 150°41′06″, in NW¼ sec. 31, T. 23 N., R. 14 W. (Bettles D-2 quad), on left bank 200 ft upstream from bridge at mi 135.2 on the Dalton Highway, 0.4 mi downstream from Trans-Alaska Pipeline crossing, 1.5 mi upstream from mouth, 2.1 mi south of Pump Station 5, and 1.5 mi southeast of Prospect Camp. Drainage area is 110 mi^2.	1968, 1975-2002	5-19-01 6-3-01 8-14-01 5-18-02 5-23-02 u	f,g 7.78 g 7.63 g 7.75 8.38 7.31 <6.88	u g S/1320 g R/1410 u S/1130 R/<866	1968	d10.22	6,800
Bonanza Creek Tributary near Prospect Camp (15564887)	Lat 66°36′52″, long 150°41′24″, in SE¼ sec. 25, T. 21 N., R. 15 W. (Bettles C-2 quad), on right bank 0.3 mi downstream from culverts at mi 121 on the Dalton Highway, 3.4 mi upstream from mouth, 13.5 mi south of Pump Station 5, and 12.6 mi south of Prospect Camp. Drainage area is 11.7 mi^2.	1975-2002	5-18-02 5-23-02 9-5-02	f 19.28 18.89 17.76	u S/149 R/81	5-15-93	19.89	290

Maximum discharge at crest-stage partial-record stations--Continued
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
			YUKON ALASKA—Continued					
Indian River at Utopia (15564950)	Lat 65°59′49″, long 153°41′V B31″, in NW1/4 sec. 19, T. 7 N., R. 25 E. (Melozitna D-2 quad), on right bank, 200 ft downstream of bridge at mi 0.2 on road to Indian Mountain. Drainage area is 38.8 mi^2.	1998-2002	n	n	n	8-20-98	18.7	828
Utopia Creek at Utopia (15564960)	Lat.65°59′26″, long 153°41′ 44″, in SW1/4 sec. 19, T. 7 N., R. 25 E. (Melozitna D-2 quad), on right bank, 460 ft downstream of 4 wheeler crossing west of airstrip, .5 mi above mouth, .3 mi south-southeast of Utopia, 5.4 mi south of Indian Mt, and 16 mi east-southeast of Hughes. Drainage area is 5.18 mi2.	1999-2002	n	n	n	5-21-02	7.09	120
Municipal Reserve Creek at Pilot Station (15565449)	Lat 61°56′19″, long 162°52′53″, in NW1/4 SE1/4 sec. 5, T. 21 N., R. 74 W. (Marshall D-3 quad), on right bank 0.3 mile upstream from mouth, and 0.1 mile north-east of Village of Pilot Station. Drainage area is 1.43 mi^2.	1993-1997 2001-2002	5-15-02 5-20-02 7-25-02	f8.90 8.11 6.46	u S/8.8 R/3.3	8-26-94	8.71	12
			NORTHWEST ALASKA					
Chiroskey River near Unalakleet (15565730)	Lat 63°55′06″, long 160°18′58″, in NW1/4 sec. 19, T. 18 S., R. 8 W. (Unalakleet D-3 quad), on left bank 0.7 miles upstream from mouth, 14 miles northeast of Unalakleet. Drainage area is 296 mi^2.	1998-2002	r9-07-01 5-23-02 9-14-02	r46.51 f48.98 45.80	R/1250 u R/916	9-07-00	47.03	1,520
Hugh Rowe Creek near Council (15581000)	Lat 64°44′35″, long 163°53′44″, in NW1/4 NW1/4 sec. 4, T. 09 S, R. 26 W. (Solomon C-4 quad), on left bank 150 ft upstream from culvert on Nome-Council Road, 0.1 miles upstream from mouth and 60 mi East of Nome. Drain-age area is 2.34 mi^2.	2001-2002	5- -01 6-06-01 5-18-02 5-26-02 9-05-02	fg73.04 g72.52 f 76.26 73.07 71.68	u S/n u S/n R/n	5-26-02	73.07	n
Goldengate Creek near Nome (15585000)	Lat 64°26′51″, long 165°03′14″, in SW1/4 sec. 15, T. 12 S., R. 32 W. (Nome B-1 quad), on right bank 80 ft upstream from culvert on Nome-Council Road, and 11 mi southeast of Nome. Drainage area is 1.55 mi^2.	1965, 1977-84, 1986-2002	5-18-02 5-26-02 9-05-02	f13.68 11.83 10.72	u S/52 R/5.0	9-08-65	d11.70	63

Maximum discharge at crest-stage partial-record stations--Continued

[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
			NORTHWEST ALASKA—Continued					
Arctic Creek above Tributary near Nome (15624998)	Lat 64°38′16″, long 165°42′42″, in NE1/4 sec. 8, T. 10 S., R. 35 W. (Nome C-2 quad), on right bank 300 ft upstream from culvert on Nome-Teller Road, 2 mi upstream from mouth, and 13 mi northwest of Nome. Drainage area is 1.13 mi^2.	1975, 1979-2002	5-22-02 6-08-02 9-05-02	f21.44 18.29 <17.49	u S/54 R/<1.6	8-20-98	19.06	182
Washington Creek near Nome (15633000)	Lat 64°42′52″, long 165°49′13″, in NW1/4 sec. 14, T. 9 S., R. 35 W. (Nome C-2 quad), on left bank, 400 ft upstream from culvert on Nome-Teller Road, and 19 mi northwest of Nome. Drainage area is 6.34 mi^2.	1964-2002	5- -02 5-26-02 9-05-02	f21.98 20.28 19.56	u S/59 R/15	7-10-75	d19.35	620
Eldorado Creek near Teller (15635000)	Lat 64°57′38″, long 166°11′59″, in NE1/4 NE1/4 sec. 20, T. 6 S., R. 37 W. (Nome D-3 quad), on right bank 30 ft downstream from bridge at mi 46.3 on Nome-Teller Road, 0.5 mi upstream from mouth at Tisuk River, and 21 mi south of Teller. Drainage area is 5.83 mi^2.	1986-87, ‡1988-90, 1991, ‡1992-98, 1999-2002	5-26-02 6-08-02 9-05-02	f9.97 8.95 9.11	u S/255 R/357	9-04-86	9.42	600
North Fork Red Dog Creek near Kivalina (15746988)	Lat 68°05′03″, long 162°52′52″, in NW1/4 SW1/4 sec. 18, T. 31 N., R. 18 W. (DeLong Mts. A-2 quad), on left bank 500 ft upstream from mouth, 1.1 mi northwest of Red Dog Mine mill site, 36 mi north of Noatak, and 50 mi northeast of Kivalina. Cominco Station 12. Drainage area is 15.9 mi^2.	‡1991-94, 1995-2002	5-29-01 6-4-01 8-12-01 6-2-02 6-3-02 9-05-02	fj8.06 f6.09 5.22 fj8.56 j5.52 5.08	u S/336 R/418 u S/560 R/333	8-17-94	6.03	900
Tutak Creek near Kivalina (15746998)	Lat 67°52′28″, long 163°40′14″, in NW1/4 NE1/4 sec. 34, T. 29 N., R. 22 W. (Noatak D-4 quad), on left bank, 1,000 ft upstream from mouth, 25 mi northeast of Kivalina, and 28 mi northwest of Noatak. Drainage area is 119 mi^2.	1992-2002	n	n	n	6-15-92	15.00	3,100

Maximum discharge at crest-stage partial-record stations--Continued
[Footnotes at end of table on p. 298]

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft3/s)	Date	Gage height (ft)	Discharge (ft3/s)
ARCTIC SLOPE ALASKA								
Atigun River Tributary near Pump Station 4 (15904900)	Lat 68°22′25″, long 149°18′48″, in NE1/4 SE1/4 sec. 28, T. 12 S., R. 12 E. (Phillip Smith Mt. B-4 quad), on right bank 0.2 mi upstream from bridge at mi 265 on Dalton Highway, 0.9 mi upstream from mouth, and 4 mi south of Pump Station 4. Drainage area is 32.6 mi^2.	1976, ‡1977-86, 1987-2002	n	n	n	7-17-99	15.51	1,650
Sagavanirktok River Tributary near Happy Valley Camp (15910300)	Lat 69°09′38″, long 148°49′40″, in NE1/4 sec. 30, T. 3 S., R. 14 E. (Sagavanirktok A-4 quad), North Slope Borough, on right bank 500 ft upstream from culvert at mi 335.2 on the Dalton Highway, 0.8 mi upstream from mouth, 0.8 mi north of Happy Valley Camp, and 16 mi south of Sagwon. Drainage area is 12.7 mi^2.	1997-2002	n	n	n	6-8-01	24.21	860
Sagavanirktok River Tributary near Deadhorse (15918200)	Lat 69°57′14″, long 148°43′48″, in NW1/4 NE1/4 sec. 19, T. 1 N., R. 14 E. (Sagavanirktok D-3 quad), on right bank 6 ft upstream from culvert at mi 386.2 on the Dalton Highway, 0.4 mi upstream from mouth, and 23 mi south of Deadhorse. Drainage area is 12 mi^2, approximately.	1986, 1988-2002	n	n	n	5-24-96	j11.8	142

FOOTNOTES

- ‡ Operated as a continuous record station
- < Less than
- > Greater than
- R/ Rainfall
- S/ Spring runoff
- a Approximately
- b Result of large landslide into West Lake displacing a significant amount of water and flowing into West Creek, a tributary to Tiaya River 1.0 mi above gage.
- c Corrected
- d At different site or datum
- e estimated
- f Ice affected
- g Not previously published
- i Data collected by Dept. of Transportation and Public Facilities
- j From floodmarks
- n To be determined
- r Revised
- u Unknown

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
SOUTHEAST ALASKA						
15040025 Dorothy Creek at mouth near Juneau	Taku Inlet	Lat 58°14′14″, long 134°03′12″, in SW1/4 SW1/4 SE1/4, sec. 12, T. 42 S., R. 69 E. (Juneau A-1 quad) in Tongass National Forest, at mouth, and 16 mi southeast of Juneau.	--	--	11-21-01 1-04-02 2-21-02 3-22-02 4-08-02 5-02-02 5-28-02	42 35 39 12 12 21 e210
15041144 Boundary Creek at Mouth near Juneau	Taku River	Lat 58°34′49″, long 133°40′01″, in SE1/4 NW1/4 NE1/4 sec. 15, T. 38 S., R. 71 E. (Taku River C-6 quad), in Tongass National Forest, at mouth, 0.4 mi southwest of U.S./Canadian boundary, 16 mi upstream from the mouth of the Taku River, and 32 mi southeast of Juneau.		1926	1- -26 6-18-26 11-20-01 7-30-02	g50 g826 43 265
15049900 Gold Creek near Juneau	Gastineau Channel	Lat 58°18′26″, long 134°23′12″, in NW1/4 NE1/4, sec. 24, T. 41 S., R. 67 E. (Juneau B-2 SE quad), City and Borough of Juneau, at Old Ebner Dam site, at head of Last Chance Basin, 0.6 mi upstream from Basin Road bridge, and 1.1 mi east of Juneau.	8.41	(‡)1984-97, 1998-2001	+11-16-01 +1-03-02 +3-07-02 +5-06-02 +7-17-02 +9-10-02	32 29 9.4 21 170 118
15052020 Lemon Creek at bridge near Juneau	Gastineau Chanel	Lat 58°21′27″, long 134°29′56″, in SW1/4 NW1/4 NE1/4, sec. 34, T. 40 S., R. 66 E. (Juneau B-2 SE quad), City and Borough of Juneau, 4.6 mi northwest of Juneau, 5.7 mi southeast of Auke Bay and 0.4 mi upstream from mouth.	24.3	1951-52, 1954, 1956-64, 1966-68, 1970	5-15-02 6-25-02 7-22-02 8-13-02 9-17-02	87 816 567 1690 356
15052425 Jordan Creek Tributary at Thunder Mt. Trailer Park near Auke Bay	Jordan Creek	Lat 58°23′33″, long 134°33′15″, in NW1/4 NE1/4 NW1/4, sec. 20, T. 40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, at downstream end of Thunder Mt. Trailer Park, 15 ft upstream from mouth, 3.4 mi northeast of Auke Bay, and 8.7 mi northwest of Juneau.	--	1999-2001	3-24-02 6-13-02	b no flow 1.1
15052430 Jordan Creek below Thunder Mt. Trailer Park near Auke Bay	Gastineau Channel	Lat 58°23′31″, long 134°33′15″, in SW1/4 NE1/4 NW1/4, sec. 20, T. 40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, at downstream end of Thunder Mt. Trailer Park, 3.4 mi upstream from mouth, 3.4 mi northeast of Auke Bay, and 8.7 mi northwest of Juneau.	0.76	1998-2001	3-24-02	b no flow
15052450 Jordan Creek at Amalga Street near Auke Bay	Gastineau Channel	Lat 58°23′14″, long 134°33′40″, in SW1/4 SW1/4 NW1/4, sec. 20, T. 40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, at Amalga Street Bridge, 3.0 mi upstream from mouth, 3.1 mi east of Auke Bay, and 8.5 mi northwest of Juneau.	1.06	1997-2001	11-17-01 3-24-02 6-17-02	2.7 0.38 2.3

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SOUTHEAST ALASKA—Continued				
15052455 Jordan Creek at Jennifer Street near Auke Bay	Gastineau Channel	Lat 58°23′01″, long 134°33′46″, in NW¹/₄ SW¹/₄ SW¹/₄, sec. 20, T. 40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, 25 ft upstream from footbridge at Jennifer Creek, behind Glacier Valley Grade School, 2.7 mi upstream from mouth, 3.1mi east of Auke Bay, and 8.5 mi northwest of Juneau.	1.64	1999, 2001	6-18-02	3.4
15052465 Jordan Creek at Nancy Street near Auke Bay	Gastineau Channel	Lat 58°22′32″, long 134°34′21″, in NE¹/₄ SW¹/₄ NE¹/₄, sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, 0.2 mi east of intersection of Mendenhall Loop Road and Nancy Street, 2 mi upstream from mouth, 3.1 mi east of Auke Bay, and 8.5 mi northwest of Juneau.	2.26	1999-2001	10-04-01	7.3
					3-24-02	0.74
					6-18-02	3.2
15052475 Jordan Creek below Egan Drive near Auke Bay	Gastineau Channel	Lat 58°21′59″, long 134°34′34″, in SW¹/₄ SW¹/₄ SE¹/₄, sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, at footbridge, 50 ft downstream from Egan Drive, 0.4 mi southeast of intersection of Egan Drive and Mendenhall Loop Road and 3.0 mi east of Auke Bay Post Office. Currently operated as a continuous-record station.	2.60	h1984,88, h1989, h1995-96, (‡)1997-2001	11-17-01	7.1
					12-03-01	1.8
					3-08-02	3.1
					3-11-02	2.0
					4-05-02	0.31
					5-08-02	0.96
					6-18-02	3.1
					7-26-02	5.6
					8-22-02	13
15052480 Jordan Creek near Auke Bay	Gastineau Channel	Lat 58°21′47″, long 134°34′47″, in SE¹/₄ NE¹/₄ NW¹/₄, sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, at Old Glacier Highway bridge, 0.9 mi upstream from mouth, and 3.0 mi southeast of Auke Bay.	2.67	1953-54, 1960, 1963-65, 1967-68, 1997, 1999-2001	3-24-02	d no flow
15052483 Jordan Creek above Yandunkin Avenue near Auke Bay	Gastineau Channel	Lat 58°21′31″, long 134°34′23″, in SE¹/₄ SW¹/₄ NE¹/₄, sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, at footbridge about 100 ft upstream from Yandunkin Avenue, 0.5 mi upstream from mouth, and 3.4 mi southeast of Auke Bay.	--	1997-2001	3-24-02	no flow
					4-16-02	d no flow
					5-08-02	0.32
					5-16-02	4.6
					5-18-02	7.4
					5-20-02	8.3
					5-22-02	8.5
					5-30-02	7.3
					6-05-02	18
					6-07-02	6.3
					6-09-02	5.7
					6-11-02	6.8
					6-13-02	4.3
					6-17-02	2.7
15052484 Jordan Creek at Juneau Airport near Auke Bay	Gastineau Channel	Lat 58°21′26″, long 134°34′14″, in NW¹/₄ NE¹/₄ SE¹/₄, sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, at Juneau International Airport, 150 ft downstream from culvert behind fire center, 0.35 mi upstream from mouth, and 3.5 mi southeast of Auke Bay.	3.04	1999	3-19-02	0.72

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SOUTHEAST ALASKA—Continued				
15052796 Montana Creek at Montana Creek Road near Auke Bay	Mendenhall River	Lat 58°25′32″, long 134°32′46″, in NW1/4 SW1/4 SE1/4, sec. 2, T. 40 S., R. 65 E. (Juneau B-2 NW quad), City and Borough of Juneau, in Tongass National Forest, at footbridge at end of Montana Creek Road, 4.1 mi upstream from mouth, and 2.85 mi north of Auke Bay.	- -	1999-00	+4-18-02 +5-07-02 +6-15-02	13 29 164
15052815 Montana Creek at Mouth near Auke Bay	Mendenhall River	Lat 58°22′54″, long 134°35′53″, in SW1/4 SE1/4 SE1/4, sec 24, T. 40 S., R. 65 E. (Juneau B-2 NW quad), City and Borough of Juneau, at footbridge 200 ft upstream of mouth, 2 mi east of Auke Bay.	16.2	1965-66, 1968, 2000-01	+4-18-02 +5-07-02 +6-15-02	16 31 165
15052900 + Mendenhall River at Brotherhood Bridge near Auke Bay	Fritz Cove	Lat 58°22′15″, long 134°36′00″, in NW1/4 SE1/4, sec. 25, T. 40 S., R. 65 E. (Juneau B-2 SW quad), City and Borough of Juneau, at Egan Expressway bridge, 1.0 mi upstream from mouth, and 2.3 mi southeast of Auke Bay.	104	1950, 1961-66, 1968, 1984, 1989, 1997, 1999-2001	+11-15-01 12-05-01 12-20-01 +3-06-02 3-13-02 +6-04-02 +8-07-02	193 116 85 116 76 2520 4060
15053170 Duck Creek at Taku Boulevard near Auke Bay	Mendenhall River	Lat 58°23′46″, long 134°33′56″, in SE1/4 SE1/4, sec. 18, T. 40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, 3.1 mi upstream from mouth, 3.1 mi east of Auke Bay, and 8 mi northwest of Juneau.	0.49	1988, 1993-01	3-24-02 6-13-02	0.32 0.18
15053185 Duck Creek at Duran Street near Auke Bay	Mendenhall River	Lat 58°23′24″, long 134°34′25″, in NE1/4 SW1/4NE1/4, sec. 19, T. 40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, 2.9 mi upstream from mouth, 3.0 mi east of Auke Bay, and 8 mi northwest of Juneau.	0.78	2000-01	3-24-02 6-13-02	1.2 1.0
15053188 Duck Creek Tributary at El Camino Street near Auke Bay	Mendenhall River	Lat 58°23′20″, long 134°34′11″, in SW1/4 SE1/4 NE1/4, sec. 19, T. 40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, 3.0 mi upstream from mouth, 3.0 mi east of Auke Bay, and 8 mi northwest of Juneau.	0.04	2000	3-24-02 6-13-02	0.05 0.29
15053190 Duck Creek at Steven Richards Blvd near Auke Bay	Mendenhall River	Lat 58°23′03″, long 134°34′31″, in NW1/4 SE1/4, sec. 19, T. 40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, 2.1 mi upstream from mouth, 2.7 mi east of Auke Bay and 8 mi northwest of Juneau.	0.88	1988,1993-1998, 2000-01	11-06-01	2.9
15053200 Duck Creek below Nancy Street near Auke Bay	Mendenhall River	Lat 58°22′31″, long 134°34′38″, in SW1/4 NE1/4, sec. 30, T.40 S., R. 66 E. (Juneau B-2 NW quad), City and Borough of Juneau, 50 ft south of intersection of Nancy Street and Mendenhall Loop Road, 0.4 mi north of intersection of Egan Drive and Mendenhall Loop Road, 1.4 mi upstream from mouth, 2.7 mi southeast of Auke Bay, and 8 mi northwest of Juneau. Currently operated as a continuous-record station.	1.30	(‡)1994-2001	10-30-01 11-15-01 2-14-02 2-14-02 2-15-02 2-22-02 3-11-02 5-17-02 6-06-02 6-18-02 7-24-02 8-21-02	8.0 3.4 13 13 20 2.6 1.7 1.2 3.4 1.9 4.5 9.1

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
SOUTHEAST ALASKA—Continued						
15053210 Duck Creek at Mendenhall Mall Road near Auke Bay	Mendenhall River	Lat 58°22′21″, long 134°35′02″ in NW1/4 NE1/4 SW1/4, sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, 1.1 mi upstream from mouth, 2.6 mi southeast of Auke Bay, and 8 mi northwest of Juneau.	1.40	1993, 1995, 1997-98	6-06-02	2.8
					6-13-02	1.4
15053215 Duck Creek at Egan Drive near Auke Bay	Mendenhall River	Lat 58°22′13″, long 134°35′06″, in SE1/4 NW1/4 SW1/4, sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, at Egan Drive, 1.0 mi upstream from mouth, 2.6 mi southeast of Auke Bay and 8 mi northwest of Juneau.	1.44	1997-98, 2000	3-24-02	d no flow
					6-13-02	1.1
15053220 Duck Creek at Delrae Rd near Auke Bay	Mendenhall River	Lat 58°22′04″, long 134°35′16″, in SW1/4 SW1/4sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, 0.8 mi upstream from mouth, 2.6 mi southeast of Auke Bay, and 8 mi northwest of Juneau.	1.49	1988-89, 1993-00	3-24-02	d no flow
					6-06-02	b no flow
					6-13-02	b no flow
15053230 Duck Creek at Berners Avenue near Auke Bay	Mendenhall River	Lat 58°21′50″, long 134°35′08″, in NW1/4 NW1/4, sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, 0.5 mi upstream from mouth, 2.8 mi southeast of Auke Bay, and 8 mi northwest of Juneau.	1.52	1994-00	3-24-02	d no flow
					4-16-02	d no flow
					5-23-02	d no flow
					5-27-02	d no flow
					6-01-02	b no flow
					6-03-02	b no flow
					6-06-02	b no flow
					6-10-02	b no flow
					6-25-02	e >0.1
					6-25-02	b no flow
					6-26-02	b no flow
					7-02-02	0.07
					8-08-02	6.6
					8-21-02	5.2
					9-18-02	9.8
15053235 Duck Creek below Cessna Drive near Auke Bay	Mendenhall River	Lat 58°21′43″, long 134°35′12″, in NW1/4 NW1/4, sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, at the corner of Alex Holden Way and Cessna Drive, 0.4 mi upstream from mouth, 2.9 mi southeast of Auke Bay, and 8 mi northwest of Juneau.	1.66	1997-00	3-24-02	d no flow
					4-16-02	d no flow
					5-23-02	b no flow
					5-27-02	b no flow
					5-30-02	b no flow
					6-01-02	b no flow
					6-03-02	b no flow
					6-06-02	b no flow
					6-09-02	b no flow
					6-11-02	b no flow
15056200 West Creek near Skagway	Taiya River	Lat 59°31′35″, long 135°21′10″, in SE1/4 NW1/4 NE1/4, sec. 15, T. 27 S., R. 59 E. (Skagway C-1 quad), 700 ft upstream from highway bridge, 0.2 mi upstream from mouth at Taiya River, and 5 mi northwest of Skagway.	43.2	1962-77, 1994	7-25-02	1570
15056210 Taiya River near Skagway	Taiya Inlet	Lat 59°30′43″, long 135°20′40″, in NE1/4 SE1/4, sec. 22, T. 27 S., R. 59 E. (Skagway B-1 quad), downstream side of highway bridge, 1 mi downstream from West Creek, 2.2 mi above mouth at Taiya Inlet, and 4 mi north of Skag-way.	179	1969-77	7-25-02	5230

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SOUTHEAST ALASKA—Continued				
15081607 Threemile Creek Tributary below canyon near Klawock	Threemile Creek	Lat 55°32′26″, long 132°57′08″, in SE1/4 SW1/4 NE1/4, sec. 16, T. 73 S., R. 82 E. (Craig C-3 quad), on Prince of Wales Island, in Tongass National Forest, at mouth of canyon, 0.37 mi upstream from mouth, and 5.2 mi east of Klawock.	1.41	2000-2001	10-30-01 2-07-02 4-03-02 6-20-02	19 3.4 2.1 7.5
15081611 Threemile Creek below Highway near Klawock	Klawock Lake	Lat 55°31′54″, long 132°59′05″, in NE1/4 NE1/4 NW1/4, sec. 20, T. 73 S., R. 82 E. (Craig C-3 quad), on Prince of Wales Island, in Tongass National Forest, at Hollis Highway crossing, 3,000 ft upstream from mouth, and 4.0 mi east of Klawock.	8.05	2000-2001	10-30-01 2-07-02 4-03-02 6-20-02	105 14 10 40
15081616 Halfmile Creek below Highway near Klawock	Klawock Lake	Lat 55°32′59″, long 133°01′44″, in SW1/4 SW1/4 SE1/4, sec. 12, T. 73 S., R 81 E.(Craig C-4 quad) On Prince of Whales Island, in Tongas National Forest, at Hollis Highway crossing, about 800 ft upstream from mouth, and 2.7 mi east of Klawock.	5.26	2000-2001	10-30-01 2-07-02 4-02-02 6-20-02	50 9.6 6.9 9.6
15087638 Granite Creek at Sitka	Western Channel	Lat 57°06′05″, long 135°23′52″, in SE1/4 SW1/4 NE1/4, sec. 16, T. 55 S., R. 63 E. (Sitka A-5 quad), on Baranof Island, in the Tongass National Forest, 200 ft downstream from Granite Creek Road Bridge, 400 ft upstream from mouth, and about 3.9 mi northwest of Sitka.	--	--	8-14-02	16
15088400 Cupola Peak Creek at Bear Cove near Sitka	Bear Cove	Lat 57°00′39″, long 135°09′11″, in NE1/4 SE1/4 SE1/4, sec. 13, T. 56 S., R. 64 E. (Sitka A-4 quad), on Baranof Island, in the Tongass National Forest, 200 ft downstream from Green Lake Road crossing, 400 ft upstream from mouth at south shore of Bear Cove in Silver Bay, and about 7.1 mi southeast of Sitka.	0.43	†2000-2001	10-01-01 11-21-01 5-29-02 8-12-02 9-4-02	d no flow d no flow 2.9 0.87 d no flow
15109029 Upper Peterson Creek near Auke Bay	Stephens Passage	Lat 58°16′27″, long 134°38′58″, in NE1/4 SW1/4 NE1/4, sec. 32, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, 2.20 mi upstream from mouth, 7.4 mi south of Auke Bay, and 9.0 mi west of Douglas.	0.43	2001	+11-6-01 +3-12-02	1.9 0.56
15109031 Peterson Creek Tributary No. 8 near Auke Bay	Peterson Creek	Lat 58°16′25″, long 134°39′02″, in NE1/4 SW1/4NE1/4, sec. 32, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest. 10 ft upstream from mouth at a point 2.11 mi upstream from mouth of Peterson Creek, 7.4 mi south of Auke Bay, and 9.0 mi west of Douglas.	0.39	2001	+11-06-01 +3-12-02	0.56 0.09
15109033 Peterson Creek Tributary No, 7 near Auke Bay	Peterson Creek	Lat 58°16′30″, long 134°39′06″, in NE1/4 SW1/4 NE1/4, sec. 32, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, 10 ft upstream from mouth at a point 2.03 mi upstream from mouth of Peterson Creek, 7.4 mi south of Auke Bay, and 9.1 mi west of Douglas.	0.82	2001	+11-06-01 +3-12-02	0.07 0.09

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SOUTHEAST ALASKA—Continued				
15109035 Peterson Creek Tributary No. 6 near Auke Bay	Peterson Creek	Lat 58°16′36″, long 134°39′11″, in SW¼ NW¼ NE¼, sec. 32, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, 10 ft upstream from mouth, at a point 1.85 mi upstream from mouth of Peterson Creek, 7.4 mi south of Auke Bay, and 9.1 mi west of Douglas.	0.16	2001	+11-06-01 +3-12-02	0.48 0.16
15109037 Peterson Creek Tributary no. 5 near Auke Bay	Peterson Creek	Lat 58°16′38″, long 134°39′18″, in NE¼ NE¼ NW¼, sec. 32, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, 10 ft upstream from mouth, at a point 1.75 mi upstream from mouth of Peterson Creek, 7.4 mi south of Auke Bay, and 9.1 mi west of Douglas.	0.02	--	+11-06-01 3-12-02	e0.02 d no flow
15109039 Peterson Creek Tributary No. 4 near Auke Bay	Peterson Creek	Lat 58°16′43″, long 134°39′26″, in NE¼ NE¼ NW¼, sec. 32, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, 8 ft upstream from mouth, at a point 1.65 mi upstream from mouth of Peterson Creek, 7.4 mi south of Auke Bay, and 9.2 mi west of Douglas.	1.04	2001	+11-06-01 +3-12-02	1.1 0.26
15109041 Peterson Creek Tributary No. 3 near Auke Bay	Peterson Creek	Lat 58°16′51″, long 134°39′35″, in SW¼ SE¼ SW¼, sec. 29, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, 10 ft upstream from mouth, at a point 1.48 mi upstream from mouth of Peterson Creek, 7.3 mi south of Auke Bay, and 9.3 mi west of Douglas.	0.48	2001	+11-06-01 +3-12-02	1.2 0.35
15109043 Peterson Creek Tributary No. 2 near Auke Bay	Peterson Creek	Lat 58°16′56″, long 134°39′42″, in NE¼ SW¼ SW¼, sec. 29, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, 8 ft upstream from mouth, at a point 1.39 mi upstream from mouth of Peterson Creek, 7.3 mi south of Auke Bay, and 9.4 mi west of Douglas.	0.08	2001	+11-06-01 3-12-02	0.10 d no flow
15109045 North Fork Peterson Creek near Auke Bay	Peterson Creek	Lat 58°16′49″, long 134°39′28″, in SE¼ SE¼ SW¼, sec. 29, T. 41 S., R. 66 E. (Juneau B-2 SW quad), City and Borough of Juneau, on Douglas Island, Tongass National Forest, 300 ft upstream from mouth, 7.3 mi south of Auke Bay, and 9.5 mi west of Douglas.	1.59	(†)1985-87, (†)1997-2001	10-11-01 11-6-01 +3-12-02 +5-31-02 7-08-02 9-24-02	2.1 1.9 0.37 3.2 1.4 4.0
15129130 East Alsek River 2.0 mi. at Mouth near Yakutat	Dry Bay	Lat 59°08′33″, long 138°22′40″, in NE¼ NW¼SW¼, sec. 16, T. 32 S., R. 42 E. (Yakutat A-2), in Glacier Bay National Park, 2.0 mi upstream from Johnny's East River Lodge, and 56 mi southwest of Yakutat.	--	--	8-30-02 8-31-02	141.32 151.27
15129135 East Alsek River 1.4 mi. at Mouth near Yakutat	Dry Bay	Lat 59°08′03″, long 138°22′47″, in NE¼ NW¼ NW¼, sec. 21, T. 32 S., R. 42 E. (Yakutat A-2), in Glacier Bay National Park, 1.4 mi upstream from Johnny's East River Lodge, and 56 mi southwest of Yakutat.	--	--	8-30-02 8-31-02	180.3 174.32

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
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Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SOUTHEAST ALASKA—Continued				
15129140 East Alsek River 1.0 mi at Mouth near Yakutat	Dry Bay	Lat 59°07′42″, long 138°23′23″, in SE$^{1}/_{4}$ SE$^{1}/_{4}$ NE$^{1}/_{4}$, sec. 20, T. 32 S., R. 42 E. (Yakutat A-2), in Glacier Bay National Park, 1.0 mi upstream from Johnny's East River Lodge, and 56 mi southwest of Yakutat.	--	--	6-2-02	100
					6-3-02	90
					6-4-02	96
					6-5-02	96
					6-6-02	105
					6-7-02	105
					6-8-02	91
					6-9-02	102
					6-10-02	120
					6-11-02	116
					6-12-02	116
					8-29-02	228
					8-30-02	231
					8-31-02	229
15129540 Drain at Airport Approach 29 near Yakutat	Lost River	Lat 59°29′42″, long 139°37′56″, in SE$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$ sec. 15, T. 28 S. R. 34 E. (Yakutat B-5 quad), at Yakutat Airport, in Tongass National Forest, 1.5 mi upstream from mouth, and 5.5 mi southeast of Yakutat.	-	-	7-11-02	0.19
					8-29-02	5.6
15129550 Drain at Airport Approach 2 near Yakutat	Tawah Creek	Lat 59°29′35″, long 139°41′17″, in SW$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$, sec. 17, T. 28 S., R. 34 E. (Yakutat B-5 quad), at Yakutat Airport, in Tongass National Forest, 0.4 mi upstream from mouth, and 5.3 mi southeast of Yakutat.	-	-	7-11-02	7.2
					8-30-02	24
15129585 Ophir Creek at gravel pit road near Yakutat	Tawah Creek	Lat 59°32′26″, long 139°42′06″, in SW$^{1}/_{4}$ SW$^{1}/_{4}$ SW$^{1}/_{4}$sec.29,T.27S.,R34E.(Yakutat C-5 SW quad), in Tongass National Forest, at gravel road crossing,3.5 mi upstream from Summit Lake, and 1.4mi southeast of Yakutat.	--	1992-2000	12-10-01	1.9
15129592 Ophir Creek abv. new excavation site near Yakutat	Tawah Creek	Lat59°32′17″,long 139°43′48″,in NW$^{1}/_{4}$ NW$^{1}/_{4}$ NW$^{1}/_{4}$sec.31,T.27S.,R34E.(Yakutat C-5 SW quad), in Tongass National Forest, about 200ft. upstream from tributary entering left bank, 2.1 mi upstream from Summit Lake, and 1.0mi south of Yakutat.	--	1998,1999	12-10-01	1.7
15129593 Ophir Creek Tributary at new excavation near Yakutat	Ophir Creek	Lat59°32′14″,long 139°43′45″,in SW$^{1}/_{4}$ NW$^{1}/_{4}$ NW$^{1}/_{4}$sec.31,T.27S.,R34E.(Yakutat C-5 SW quad), in Tongass National Forest, 50 ft upstream from Summit Lake road, 100 ft upstream from mouth, and 1.1 mi south of Yakutat.	--	1998-2000	12-10-01	0.09
15129600 Ophir Creek near Yakutat	Tawah Creek	Lat 59°31′26″, long 139°44′37″, in SW$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$, sec. 1, T. 28 S., R. 33 E. (Yakutat C-5 SW quad), in Tongass National Forest, 0.8 mi upstream from Summit Lake, and 2 mi south of Yakutat. Currently operated as a continuous-record station.	a2.5	(‡)1992-2001	10-24-01	26
					12-9-01	7.8
					3-13-02	5.1
					4-17-02	1.7
					7-11-02	2.5
					8-29-02	24
15129615 Ophir Creek tributary at confluence near Yakutat	Ophir Creek	Lat59°31′04″,long 139°44′43″,inNW$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$sec.1,T.28S.,R33E.(Yakutat C-5 SW quad), in Tongass National Forest,at confluence with Ophir Creek, and 2.3 mi south of Yakutat.	--	1992-2001	12-10-01	0.59

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
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Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SOUTH-CENTRAL ALASKA				
625120143405500 Slana Slough near Tok	Slana River	Lat 62°51′20″, long 143°40′55″, in SE¼, sec. 34, T. 13 N., R. 10 W. (Nabesna D-6 quad), at bridge, mile 75.7 Tok Cutoff, 50 mi south of Tok.	--	--	8-27-02	240
625110143413000 Slana River near Tok	Copper River	Lat 62°51′10″, long 143°41′30″, in NE¼, sec. 3, T. 12 N., R. 9 W. (Nabesna D-6 quad), at bridge, mile 75.2 Tok Cutoff, 50 mi south of Tok.	327	--	8-27-02	1,360
15200400 Gulkana River at Gulkana	Copper River	Lat 62°16′08″, long 145°23′52″, in SE¼, sec. 27, T. 6 N., R. 1 W. (Gulkana B-3 quad), at mile 126.9 Richardson Highway.	1,966	1948-50 1954 1957-60 1965-66 1970-71 1998 2001	8-26-02	4,750
15201000 Dry Creek near Glennallen	Copper River	Lat 62°08′49″, long 145°28′31″, in NE¼, sec. 7, T. 4 N., R. 1 W. (Gulkana A-3 quad), 135 ft upstream from culvert at mi 119 Richardson Highway and 3.3 mi north of Glennallen.	11.4	†1963-2001	5-30-02	48
15202000 Tazlina River near Glennallen	Copper River	Lat 62°03′18″, long 145°25′30″, in SW¼, sec. 9, T. 3 N., R. 1 W. (Gulkana A-3 quad), at bridge, 115.3 Richardson Highway, 5 mi southeast of Glennallen.	a2,670	‡1949-72 1997-99 2001	8-26-02	14,500
15210025 McCarthy Creek at McCarthy	Kennicott River	Lat 61°25′54″, long 142°55′02″, in NW¼ NW¼ NE¼, sec. 19, T. 5 S., R. 14 E. (McCarthy B-6 quad), 1100 ft upstream from large boulder near footbridge at trail crossing at McCarthy, 0.8 mi upstream from mouth.	79.0	†1993-2001	5-16-02 6-04-02 7-25-02	93 319 682
15212500 Boulder Creek near Tiekel	Tiekel River	Lat 61°20′08″, long 145°18′26″, in SE¼ SW¼ NW¼, sec. 19, T. 6 S., R. 1 E. (Valdez B-4 quad), at mi 51.4 on the former Richardson Highway.	9.80	†1964-2001	8-29-02	18
15212800 Ptarmigan Creek Tributary near Valdez	Ptarmigan Creek	Lat 61°08′12″, long 145°44′32″, NW¼ NE¼, sec 34, T. 8 S., R. 3 W. (Valdez A-5 quad), 275 ft upstream from Richardson Highway, 21 mi east of Valdez.	0.72	†1965-70 †1995-2001	8-29-02	2.5
15227500 Mineral Creek near Valdez	Port Valdez	Lat 61°08′30″, long 146°21′42″, in SW¼ NE¼ SE¼, sec. 30, T. 8 S., R. 6 W. (Valdez A-7 quad), 120 ft upstream from bridge, 1.8 mi above mouth, and 0.5 mi northwest of Valdez.	44.0	1913, 1948-50, 1972-73, †1990-2001	7-24-02	1,160
15236200 Shakespeare Creek at Whittier	Passage Channel	Lat 60°46′35″, long 148°43′35″, in NE¼, sec.22, T. 8 N., R. 4 E. (Seward D-5 quad), at bridge 0.5 mi upstream from mouth, and 1.8 mi west of the Alaska Railroad terminal building at Whittier.	1.61	1969, †1970-80, †1985-2001	6-13-02 7-30-02 9-25-02	58 58 107
601105149385100 Exit Glacier Creek Tributary at mile 0.6 of Harding Trail near Seward	Exit Glacier Creek	Lat 60°11′05″, long 149°38′51″, in NW¼ NW¼ NW¼, sec. 16, T. 1 N., R. 2 W. (Seward A-8 quad), Kenai Peninsula Borough, at footbridge at mi. 0.64 Harding Ice Field Trail, 8 mi. northwest of Seward.	--	2001	10-02-01	3.0

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SOUTH-CENTRAL ALASKA—Continued				
601105149382400 Exit Glacier Creek channel at mile 0.1 of Harding Trail near Seward	Resurrection River	Lat 60°11′05″, long 149°38′24″, in NE¼ NW¼ NW¼, sec. 16, T. 1 N., R. 2 W. (Seward A-8 quad), Kenai Peninsula Borough, 50 ft. west of mi. 0.05 of Harding Ice Field Trail, 8 mi. northwest of Seward.	--	2001	10-02-01	1.5
15239500 Fritz Creek near Homer	Kachemak Bay	Lat 59°42′30″, long 151°20′35″, in SW¼ SW¼, sec. 28, T. 5 S., R. 12 W. (Seldovia C-4 quad), 25 ft downstream from culvert under East Road, and 8 mi northeast of Homer.	10.4	†1963-66, †ƒ 1967-70, †1971-77, †ƒ 1978-80 †+1981-85, ‡1986-92 †1993-2001	5-21-02	46
15239900 Anchor River near Anchor Point	Cook Inlet	Lat 59°44′50″, long 151°45′11″, in NE¼, sec. 13, T. 5 S., R. 15 W. (Seldovia C-5 quad), Kenai Peninsula Borough, at bridge on Sterling Highway, 4.3 mi southeast of Anchor Point.	137	‡1965-73 †1974 ‡1978-86 †1987 ‡1991-92 1996, 1999, 2001	7-16-02 8-21-02	92 167
15242000 Kasilof River near Kasilof	Cook Inlet	Lat 60°19′05″, long 151°15′35″, in SW¼, sec. 30, T. 3 N., R. 11 W. (Kenai B-4 quad), Kenai Peninsula Borough, at bridge, mi 67.1 Sterling Highway, 5 mi south of Kasilof.	738	‡1949 - 70	7-11-02	4,750
15274796 + South Branch of South Fork Chester Creek at tank trail near Anchorage	South Fork Chester Creek	Lat 61°11′25″, long 149°42′13″ in SE ¼ NW¼, sec. 30, T. 13 N., R. 2 W. (Anchorage A-8 quad), Municipality of Anchorage, 100 ft upstream from bridge on tank trail (Bulldog Trail), and 6.5 mi east of Anchorage.	4.30	1968, 72 1980 1998-2001	4-19-02 5-13-02 5-16-02 6-01-02 7-25-02 8-16-02 8-30-02 9-04-02	1.3 3.6 3.8 7.3 3.7 3.3 3.4 3.3
611142149430300 South Branch of South Fork Chester Creek near Brookridge Drive at Anchorage	South Fork Chester Creek	Lat 61°11′42″, long 149°43′03″ in NW¼ NW¼, sec. 30, T. 13 N., R. 2 W. (Anchorage A-8 quad), Municipality of Anchorage, 500 ft east of Brookridge Drive, underneath intersection of electrical transmission lines.	--		5-16-02	5.3
15275100 Chester Creek at Arctic Boulevard at Anchorage	Knik Arm	Lat 61°12′19″, long 149°53′43″, on line between sec. 19, R. 3 W., and sec. 24, R. 4 W., T. 13 N. (Anchorage A-8 quad), Municipality of Anchorage, 50 ft downstream from bridge on Arctic Boulevard in Anchorage and 0.8 mi upstream from mouth.	27.4	1966-2001	10-02-01 3-13-02 4-18-02	20 7.1 16
15276250 Ship Creek below Cottonwood Park near Anchorage	Knik Arm	Lat 61°14′29″, long 149°42′14″, in SE¼ SW¼, sec. 6, T. 13 N., R. 2 W. (Anchorage A-8 quad), Municipality of Anchorage, 0.4 mi downstream from Glenn Hwy bridge, and 6.1 mi east of Anchorage	--	2000	5-30-02	555

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Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SOUTH-CENTRAL ALASKA—Continued				
15280100 Eklutna River above Thunderbird Creek near Eklutna	Knik Arm	Lat 61°26′44″, long 149°21′16″, in NW1/4 SW1/4, sec. 30, T. 16 N., R. 1 E. (Anchorage B-7 quad), Municipality of Anchorage, 800 ft upstream from Thunder Bird Creek, 3.3 mi upstream from mouth, and 1.6 mi southeast of Eklutna.	--	1954-56	5-01-02 5-10-02 6-03-02 7-11-02 8-30-02 9-25-02	24 13 8.9 7.9 6.7 7.5
15283600 Premier Creek near Sutton	Moose Creek	Lat 61°42′40″ long 149°05′12″, in SE1/4 NE1/4, sec. 28, T. 19 N., R. 2 E. (Anchorage C-6 quad), Matanuska-Susitna Borough, 10 ft downstream from culvert on Buffalo Mine Road (named Moose Creek Road on Anchorage C-6 quad), 4 mi north of Glenn Highway, 6 mi west of Sutton, and 7 mi northeast of Palmer.	3.38	†1996-2001	5-07-02 9-27-02	8.3 12
15283700 Moose Creek near Palmer	Matanuska River	Lat 61°41′00″, long 149°02′36″, in NE1/4 NE1/4, sec. 2, T. 18 N., R. 2 E. (Anchorage C-6 quad), Matanuska-Susitna Borough, 0.2 mi upstream from Glenn Highway bridge, 0.8 mi upstream from mouth and 6.5 mi north of Palmer.	47.3	‡1998-2001	10-05-01 11-20-01	66 32
15285000 Wasilla Creek near Palmer	Knik Arm	Lat 61°38′37″, long 149°11′46″, in SE1/4 SW1/4, sec. 13, T. 18 N., R. 1 E. (Anchorage C-6 quad), Matanuska-Susitna Borough, 20 ft downstream from culverts on Palmer-Fishhook Road, and 4.1 mi northeast of Palmer.	16.8	†1971, ƒ†1976-83, †1984-2001	5-07-02	55
15290200 Nancy Lake Tributary near Willow	Nancy Lake	Lat 61°41′17″, long 149°57′58″, in SE1/4 SE1/4, sec. 34, T. 19 N., R. 4 W. (Tyonek C-1 quad), Matanuska-Susitna Borough, 150 ft upstream from culvert at Parks Highway, 0.3 mi upstream from mouth, and 4.5 mi southeast of Willow.	8.00	ƒ1978-79, †1980, ƒ1981, †1983-86, †1990-2001	5-07-02	40
15291100 Raft Creek near Denali	Susitna River	Lat 63°03′04″, long 147°16′22″, in SE1/4, sec. 36, T. 21 S., R. 2 E., (Healy A-1 quad), Matanuska-Susitna Borough, 30 ft upstream from culvert at mi 68.9 Denali Highway, and 10.7 mi southeast of Denali.	4.33	†1963-67, †1971-75, †1977-82, †1984-90, †1993-2001	7-17-02	6.8
15292400 Chulitna River near Talkeetna	Susitna River	Lat 62°33′31″, long 150°14′02″, in SE1/4 , sec. 32, T. 29 S., R. 5 W., (Talkeetna C-1 quad), Matanuska-Susitna Borough, 0.5 mi downstream from Parks Highway Bridge, 4.5 mi downstream from Troublesome Creek, 18 mi upstream from mouth, and 16 mi northwest of Talkeetna.	2,570	‡1958-1986	8-30-02	17,400
15297200 Myrtle Creek near Kodiak	Kalsin Bay	Lat 57°36′12″, long 152°24′12″ in NW1/4 SW1/4, sec. 6, T. 30 S., R. 19 W. (Kodiak C-2 quad), Kodiak Island Borough, 0.1 mi upstream from bridge, 0.3 mi upstream from mouth, and 13 mi south of Kodiak.	4.74	‡1963-86, †1987-89, †1991-2001	4-23-02 5-29-02 6-26-02	29 220 260

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
SOUTHWEST ALASKA						
15297609 Stapp Creek near Cold Bay	Cold Bay	Lat 55°11′17″, long 162°42′47″, in SE¼ SE¼ NW¼, sec. 1, T.58 S., R. 89 W. (Cold Bay A-3 quad), Aleutians East Borough, 0.9 mi upstream from mouth, and 1 mi south of Cold Bay.	1.68	†2001	4-30-02 6-20-02 9-03-02	1.6 1.7 0.72
15297810 Frosty Creek near Cold Bay	Izembek Lagoon	Lat 55°09′59″, long 162°48′22″, in SE¼ SW¼ SE¼, sec. 8, T.58 S., R. 89 W. (Cold Bay A-3 quad), Aleutians East Borough, 2.8 mi upstream from mouth, and 4.5 mi southwest of Cold Bay.	5.92	†2001	4-30-02 6-20-02 9-03-02	69 62 43
15300350 Chinkelyes Creek tributary near Pedro Bay	Chinkelyes Creek	Lat 59°44′02″, long 153°48′40″, in SE¼ NE¼ NE¼, sec. 23, T. 5 S., R. 27 W. (Iliamna C-3 quad), Lake and Peninsula Borough, 60 ft upstream from culvert, 8 mi east of Pile Bay and 11 mi east of Pedro Bay.	0.40	†1998-2001	10-02-01 6-24-02	2.2 4.6
15302900 Moody Creek at Aleknagik	Wood River	Lat 59°16′34″, long 158°35′42″, in SE¼, sec. 30, T. 10 S., R. 55 W. (Dillingham B-7 quad), 500 ft upstream from mouth at Wood River at the Aleknagik Mission.	1.28	1968 †1969-73, †1975-83, †1988-89 †1993-2001	5-15-02 7-09-02	o20 1.9
15303660 Gold Creek at Takotna	TakotnaRiver	Lat 62°59′20″, long 156°04′08″, in SE¼ SE¼, sec. 34, T. 34 N., R. 36 W. (Iditarod D-1 quad), at Takotna, 350 ft upstream from bridge, and 400 ft upstream from mouth.	6.31	†1987-2001	7-23-02	3.4
YUKON ALASKA						
15305900 Dennison Fork near Tetlin Junction	South Fork Forty Mile River	Lat 63°25′24″, long 142°29′00″, in SW1/4 sec. 14, T. 19 N., R. 15 E. (Tanacross B-3 quad), 10 ft downstream from culvert at mi 10.7 Taylor Highway and 8.3 mi northeast of Tetlin Junction.	2.93	†1964-70, †1972-75, †1977, †1979, †1981-84, †1983-90, †1992-2001	6-10-02	35
15344000 King Creek near Dome Creek	O'Brien Creek	Lat 64°23′38″, long 141°24′43″, in NE¼ SW¼ sec. 16, T. 6 S., R. 32 E. (Eagle B-1 quad), at mi 120 Taylor Highway, 1,100 ft upstream from culvert at mi 119.9, 0.4 mi upstream from mouth, 4.9 mi east of Dome Creek, and 28 mi south of Eagle.	5.87	†1975-77 †1979-80 †1982 †1983-1990 †1991-2001	5-23-02 7-9-02	4.1 46
15388060 Kandik River near Nation	Yukon River	Lat 65°23′44″,long 142°25′41″ in NW¼ NE¼, sec. 32, T. 6N., R. 25E., (Charley River B-3 quad), in Yukon-Charley Rivers National Preserve, on right bank, 0.75 mi upstream of mouth of Threemile Creek, 3.75 mi above mouth of the Kandik River, 23 mi northwest of Nation townsite and 55 mi north-northwest of Eagle.	1084	‡1994-2001	06-15-02 6-20-02 8-5-02 8-24-02 9-21-02	2320 660 512 3220 825

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		YUKON ALASKA—Continued				
15389000 Porcupine River near Fort Yukon	Yukon River	Lat 66°59′26″,long 143°08′16″ in NE¼ SW¼, sec. 16, T. 25N., R. 21E., (Black River D-5 quad), 1,000 ft upstream from John Herberts Village, and 65 mi northeast of Fort Yukon.	a29,500	‡1964-79, 2001	3-11-02 6-6-02 6-18-02 6-26-02 8-13-02 9-27-02	806 28,800 43,700 48,900 18,500 10,700
15389980 Ptarmigan Creek near mouth near Central	Birch Creek	Lat 65°26′24″, long 145°31′34″, in NE¼, sec. 17, T. 7 N., R. 10 E. (Circle B-4 quad), at mi 101.5 Steese Highway, 0.2 mi upstream from mouth, 10.5 mi southeast of Miller House site, 11.7 mi west of Mastodon Dome, and 22.6 mi southwest of Central.	19.2	--	7-26-01	g9.6
15393900 North Fork 12 Mile Creek near Miller House	Birch Creek	Lat 65°24′03″, long 145°44′18″, in SW¼, sec. 29, T. 7 N., R. 10 E. (Circle B-4 quad), at mi 93.4 Steese Highway, 0.5 mi upstream from confluence with Twelvemile Creek, 1.3 mi upstream from mouth of Twelvemile Creek, 17.2 mi southwest of Miller House site, 11.7 mi west of Mastodon Dome, and 29.4 mi southwest of Central.	23.2	1963-67	7-26-01	g9.7
15395900 Upper Frying Pan Creek near Central	Birch Creek	Lat 65°19′37″, long 145°33′01″, in SE¼, sec. 19, T. 6 N., R. 10 E. (Circle B-4 quad), 0.3 mi upstream of the confluence with Frying Pan Creek, mi upstream from the mouth of Frying Pan Creek, 16.6 mi southwest of Miller House site, 9.4 mi southwest of Mastodon Dome, and 27.4 mi southwest of Central.	8.00	2001	8-22-01 7-26-02	g7.8 46
15396100 Frying Pan Creek at mouth near Central	Birch Creek	Lat 65°16′58″, long 145°33′33″, in SE¼, sec. 6, T. 5 N., R. 10 E. (Circle B-4 quad), 0.2 mi upstream from mouth, 19.4 mi southwest of Miller House site, 12.0 mi southwest of Mastodon Dome, and 29.6 mi southwest of Central.	12.5	--	7-26-02	112
15397500 Great Unknown Creek near Central	Birch Creek	Lat 65°17′38″, long 145°24′00″, in NW¼, sec. 1, T. 5 N., R. 11 E. (Circle B-3 quad), 0.7 mi upstream from mouth of E. Fork Great Unkown Creek, 2.6 mi upstream from mouth of Great Unkown Creek, 16.8 mi south of Miller House site, 9.6 mi south of Mastodon Dome, and 25.9 mi southwest of Central.	18.6	2001	8-21-01 7-26-02	g22 52
15397700 East Fork Great Unknown Creek near Central	Birch Creek	Lat 65°17′36″, long 145°23′20″, in NW¼, sec. 1, T. 5 N., R. 11 E. (Circle B-3 quad), 0.8 mi upstream from mouth. 2.8 mi upstream from mouth of of Great Unkown Creek, 16.7 mi south of Miller House site, 9.6 mi south of Mastodon Dome, and 25.7 mi southwest of Central.	20.4	2001	8-21-01 7-26-02	g20 17
15403000 Volcano Creek near Central	Clums Fork	Lat 65°08′09″, long 145°28′39″, in NE¼, sec. 34, T. 4 N., R. 11 E. (Circle A-3 quad), 0.7 mi upstream from mouth, 27.9 mi south of Miller House site, 20.8 mi south of Mastodon Dome, and 36.0 mi southwest of Central.	5.59	2001	8-20-01 7-24-02	g11 4.5

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		YUKON ALASKA—Continued				
15404800 Anvil Creek near Central	Clums Fork	Lat 65°12′42″, long 145°14′25″, in SE1/4, sec. 34, T. 5 N., R. 12 E. (Circle A-3 quad), 2.4 mi upstream from mouth, 21.7 mi south of Miller House site, 15.4 mi south of Mastodon Dome, and 28.0 mi southwest of Central.	20.4	2001	8-20-01 7-24-02	g29 14
15407200 South Fork Harrison Creek near Central	Birch Creek	Lat 65°21′52″, long 145°15′25″, in NW1/4, sec. 10, T. 6 N., R. 12 E. (Circle B-3 quad), 4.0 mi upstream from confluence with North Fork Harrison Creek, 20.0 mi upstream from mouth of Harrison Creek, 11.1 mi south of Miller House site, 5.1 mi southeast of Mastodon Dome, and 19.5 mi southwest of Central.	9.11	2001	8-20-01 7-24-02	g20 3.9
15407500 Harrison Creek near Central	Birch Creek	Lat 65°22′45″, long 144°49′58″, in NE1/4, sec. 3, T. 8 N., R. 14 E. (Circle B-2 quad), 0.4 mi upstream of mouth of Bottom Dollar Creek, 5.3 mi upstream from mouth of Harrison Creek, 15.0 mi southeast of Miller House site, 15.0 mi east of Mastodon Dome, and 13.5 mi south of Central.	71.6	2001	8-20-01 7-24-02	g100 34
15439800 Boulder Creek near Central	Crooked Creek	Lat 65°34′05″, long 144°53′13″, in NW1/4, sec. 32, T. 9 N., R. 14 E. (Circle C-2 quad), 2000 ft upstream from bridge at mi 125.4 Steese Highway, 0.7 mi upstream from mouth, and 2.3 mi west of Central.	31.3	†1964-65, ‡1966-82, †1983, ‡1984-86, †1988-2001	6-12-02	97
15442500 Quartz Creek near Central	Crooked Creek	Lat 65°37′09″, long 144°28′55″, in SW1/4, sec. 7, T. 9 N., R. 16 E. (Circle C-2 quad), at mi 138.1 Steese Highway, 1 mi upstream from mouth, and 10 mi east of Central.	17.2	†1990, †1992-2001	6-12-02 8-20-02	8.3 13
15453610 Ray River Tributary near Stevens Village	Ray River	Lat 65°56′57″, long 149°54′50″ in SE1/4, sec.17, T.13 N., R. 11 W. (Livengood D-6 quad), at mi 63.8 Dalton Highway and 22 mi west of Stevens Village.	8.00	†1977, †1979-80 †1982 †1987-88 †1990-2001	5-25-02	26
15470300 Little Jack Creek near Nabesna	Jack Lake	Lat 62°32′39″, long 143°19′22″, in SW1/4 NW1/4 SE1/4, sec. 22 T. 9 N., R. 11 E. (Nabesna C-5 quad), mi 25.8 Nabesna Road, and 15.6 mi northwest of Nabesna.	6.73	†1975-77 †1980 †1982-83 †1985-88 †1990-95 †1997-2001	5-30-02	16
6306301431730 Tok River near Tok	Tanana River	Lat 63°06′30″, long 143°17′30″ in SE1/4, sec. 3, T. 15 N., R. 11 E. (Tanacross A-5 quad), at bridge, 102.5 mi Tok cutoff, 20 mi south of Tok.	762		8-27-02	1,570
15476300 Berry Creek near Dot Lake	Tanana River	Lat 63°41′23″, long 144°21′47″, in NW1/4, sec. 13 T. 22 N., R. 5 E. (Mt. Hayes C-1 quad), 100 ft upstream from former bridge site at mi 1371.4 on abandoned section of Alaska Highway, 1.9 mi upstream from mouth, and 6.0 mi west of Dot Lake.	65.1	†1963-71, †1972-81, †1982,1984, †1988 †1990-94 †1997-2001	5-21-02	282

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
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Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		YUKON ALASKA—Continued				
15478093 Suzy Q Creek near Pump Station 10	Delta River	Lat 63°29′43″, long 145°51′27″, in SW1/4, sec. 29, T. 16 S., R. 10 E. (Mt. Hayes B-4 quad), at mi 224.8 Richardson Highway, 0.1 mi upstream from mouth, and 6 mi north of Pump Station 10.	1.29	†1987, †1991-94, †1997-2001	5-29-02 7-25-02 9-27-02	3.6 1.0 7.9
15478499 Ruby Creek above Richardson Highway near Donnelly	Delta River	Lat 63°37′54″, long 145°52′14″, in NE1/4, sec. 7, T. 15 S., R. 10 E. (Mt. Hayes C-4 quad), 0.2mi upstream from trans-Alaska Pipeline, 0.5 mi upstream from bridge at mi 234.8 Richardson Highway, 2.2 mi upstream from mouth, and 2.3 mi south of Donnelly.	4.89	†1987-88, †1991-97, †1999-2000	5-29-02 7-19-02 9-27-02	11 1.3 10
15480000 Banner Creek at Richardson	Tanana River	Lat 64°17′24″ long 146°20′56″, in SW1/4, sec. 22, T. 7 S., R. 7 E. (Big Delta B-5 quad), 400 ft upstream from bridge at mi 295.4 Richardson Highway 0.2 mi upstream from mouth, and 0.4 mi northwest of Richardson.	20.2	†1964-67, †1969-70, †1972, †1974-75, †1977, †1982-84, †1989-93, †1995-96 †1998-2001	5-16-02 7-25-02 9-27-02	23 4.1 9.1
1551400425 Noyes Slough at Minnie Street Bridge at Fairbanks	Chena River	Lat 64°50'57″, long 147°42'15″, in NW1/4, sec. 11, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), Hydrologic Unit 19040506. 900 ft. downstream from Noyes Slough entrance 0.3 mi downstream from Wendell Street Bridge, 5.6 mi upstream from mouth, and 11.3 mi downstream from Chena Slough entrance.	--	1967,1971, 1989,1990, 1992-1994 2000,2001	5-03-00 5-10-00 5-11-00 5-20-00 5-21-00 5-24-00 5-27-00 5-30-00 6-06-00 6-15-00 6-19-00 8-12-00	g14 g67 g34 g37 g90 g311 g431 g90 g117 g34 g0.54 g2.0
1551400435 Noyes Slough at Illinois Street Bridge at Fairbanks	Chena River	Lat 64°51′16″, long 147°42′50″, in SW1/4NE1/4 SE1/4, sec. 3, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), at Illinois Street Bridge at Fairbanks.	--	1993,1994, 2000	5-20-94 5-25-94 7-07-94 5-21-00 5-30-00 6-06-00 8-12-00	g0.49 r0.48 r133 g95 g88 g116 g,b no flow
1551400455 Noyes Slough at OConnor Road Bridge at Fairbanks	Chena River	Lat 64°51′26″, long 147°43′21″, in SW1/4SW1/4 NE1/4, sec. 3, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), at O'Conner Road bridge at Fairbanks.		1993, 2000	5-10-00 5-21-00 5-30-00 6-06-00 6-18-00	g80 g125 g97 g117 g,b no flow
1551400465 Noyes Slough at Isabella Creek at Fairbanks	Chena River	Lat 64°51′26″, long 147°43′47″, in SE1/4SE1/4 NW1/4, sec. 3, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), 2,500ft downstream of O'Conner Road Bridge, Fairbanks.		1993, 1994	7-29-94	r3.7

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
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Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		YUKON ALASKA—Continued				
1551400550 Noyes Slough at Danby Street Bridge at Fairbanks	Chena River	Lat 64°51′41″, long 147°44′30″, in SW$^{1}/_{4}$ NW$^{1}/_{4}$ NW$^{1}/_{4}$, sec. 3, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), at Danby Street Bridge at Fairbanks.		1993,1994 2000	5-10-00 5-21-00 5-30-00 6-06-00 6-18-00 6-22-00 8-20-02	g74 g113 g101 g126 g,b no flow g0.93 486
1551400650 Noyes Slough at Aurora Drive Bridge at Fairbanks	Chena River	Lat 64°51′42″, long 147°45′32″, in SW$^{1}/_{4}$ NW$^{1}/_{4}$ NE$^{1}/_{4}$, sec. 4, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), at Aurora Drive Bridge at Fairbanks.		1993,1994 2000	6-22-00	g1.2
1551401550 Noyes Slough at West Johansen Expressway Bridge at Fairbanks	Chena River	Lat 64°50′57″, long 147°48′18″, in NE$^{1}/_{4}$ NW$^{1}/_{4}$ NW$^{1}/_{4}$, sec. 8, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), at West Johansen Expressway Bridge at Fairbanks.		1993,2000	5-11-00 5-20-00 5-21-00 5-30-00 6-06-00 6-19-00 6-22-00	g98 g14 g100 g145 g115 g7.1 g3.7
1551401570 Noyes Slough at Indiana Avenue at Fairbanks	Chena River	Lat 64°50′52″, long 147°48′23″, in NW$^{1}/_{4}$ NW$^{1}/_{4}$ NW$^{1}/_{4}$, sec. 8, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), at Indiana Avenue Bridge at Fairbanks.		1993,1994 2000	6-22-00	g3.0
1551401580 Noyes Slough at Goldizen Avenue Bridge at Fairbanks	Chena River	Lat 64°50′38″, long 147°48′24″, in NW$^{1}/_{4}$ SW$^{1}/_{4}$ NW$^{1}/_{4}$, sec. 8, T.1 S., R.1 W., Fairbanks North Star Borough, (Fairbanks D-2 Quad), at Goldizen Avenue Bridge at Fairbanks.		2000	5-11-00 5-30-00 6-06-00 6-18-00 6-22-00	g112 g97 g131 g6.0 g2.9
15516200 Slime Creek near Cantwell	Nenana River	Lat 63°30′34″, long 148°48′39″, in SE$^{1}/_{4}$, sec. 24, T. 16 S., R. 7 W. (Healy C-4 quad), 25 ft. down stream of culverts at mi 219.9 George Parks Highway, 9.1 mi northeast of Cantwell.	6.90	†1990-2001	5-28-02	55
634405149542000 Nenana River at Park Station	Tanana River	Lat 63°44′05″, long 149°54′20″, in NE$^{1}/_{4}$, sec. 25, T. 15 S., R. 7 W., Denali Borough (Healy D-4 quad), at bridge, mile 202.4 Parks Highway, 8 mi south of Healy.	1,870		8-30-02	8,250
15517980 Dragonfly Creek near Healy	Nenana River	Lat 63°47′45″, long 148°55′19″, in SW$^{1}/_{4}$, sec. 9, T.13 S., R. 7 W., (Healy D-4 quad), at mi 242.6 George Parks Highway, 6 mi southeast of Healy.	0.71	†1990-95, †1997-2001	7-9-02 8-21-02	1.2 2.2
15541600 Globe Creek near Livengood	Tatilina River	Lat 65°17′08″, long 148°07′56″, in SE$^{1}/_{4}$, sec. 3, T. 5 N., R. 3 W. (Livengood B-3 quad), 0.2 mi upstream from culvert at mi 36.7 Elliott Highway.	23.0	†1964-70, †1972-74, †1976, †1982-83, †1985-86, †1989-91, †1993, †1995-2001	5-23-02	32

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
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Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		YUKON ALASKA—Continued				
15564868 Snowden Creek near Wiseman	Dietrich River	Lat 67°44′20″, long 149°44′24″, in SW1/4, sec. 26, T. 34 N., R. 10 W. (Chandalar C-6 quad), upstream from culvert at mi 213.5 Dalton Highway and 24.5 mi northeast of Wiseman.	16.7	†1977-80, †1982, †1984-85, †1987-94, †1996-2001	5-24-02 9-11-02	143 13
15564872 Nugget Creek near Wiseman	Middle Fork Koyukuk River	Lat 67°29′25″, long 149°52′20″, in NW1/4, sec. 30, T. 31 N., R. 10 W. (Chandalar B-6 quad), upstream from culvert at mi 195.6 Dalton Highway, and 8.7 mi northeast of Wiseman.	9.47	†1975-79, †1982, †1985, †1987, †1989-2001	5-24-02	63
15564884 Prospect Creek near Prospect Camp	Jim River	Lat 66°46′56″, long 150°41′06″, in NW1/4, sec. 31, T. 23 N., R. 14 W. (Bettles D-2 quad), at mi 135.2 Dalton Highway, 0.4 mi downstream from Trans-Alaska Pipeline crossing, 1.5 mi upstream from mouth .	110	†1975-78, †1980 †1982 †1989 †1992-2001	5-25-02	798
15564887 Bonanza Creek Tributary near Prospect Camp	Bonanza Creek	Lat 66°36′52″, long 150°41′24″, in SE1/4, sec. 25, T. 21 N., R. 15 W., 0.3 mi downstream from culverts at mi 121.2 Dalton Highway, 3.4 mi upstream from mouth, and 13.5 mi south of pump station 5.	11.7	†1975-76, †1982, †1985-86, †1989-95, †1997-2001	5-25-02	52
15564950 Indian River at Utopia	Koyukuk River	Lat 65°59′49″, long 153°41′31″, in NW1/4, sec. 19, T. 7 N., R. 25 E. (Melozitna D-2 quad), at mi 0.2 on road to Indian Mountain, and 1.8 mi upstream from mouth of Flat Creek.	38.8	†1998-2001	5-28-02 9-3-02	119 14
15564960 Utopia Creek at Utopia	Indian River	Lat 65°59′19″, long 153°42′18″, in SE1/4, sec. 24, T. 7 N., R. 24 E. (Melozitna D-2 quad), 0.3 mi south of landing strip at Utopia, and 1.2 mi upstream from mouth.	5.18	†1998-2001	5-28-02 9-3-02	20 4.2
15565400 Anvik River near Anvik	Yukon River	Lat 62°47′22″, long 160°41′49″, in NW1/4 SE1/4, sec. 10, T. 31 N., R. 61 W. (Holy Cross D-4 quad), approx. 25 river mi upstream from mouth and 18 mi northwest of Anvik.	--	2001	3-20-02 6-25-02 7-30-02 9-03-02	171 1490 1140 530
15565449 Municipal Reserve Creek at Pilot Station.	Yukon River	Lat 61°56′19″, long 162°52′53″, in NW1/4 SE1/4, sec. 5, T. 21 N., R. 74 W. (Marshall D-3 quad), 0.3 mile upstream from mouth, and 0.1 mile north of Village of Pilot Station.	1.43	†1993-97, †2001	6-11-02 7-16-02 9-25-02	0.10 0.61 0.33
		NORTHWEST ALASKA				
15565730 Chiroskey River near Unalakleet	Unalakleet River	Lat 63°55′06″, long 160°18′58″, in NW1/4, sec. 19, T. 18 S., R. 8 W. (Unalakleet D-3 quad), on left bank, 3/4 mi upstream from mouth, 14 mi northeast of Unalakleet.	296	†1998, †2001	6-18-02	215
15581000 Hugh Rowe Creek near Council	Fox River	Lat 64°44′35″, long 163°53′44″, in NW1/4 NW1/4 NW1/4, sec. 4, T. 9 S., R 26 W. (Solomon C-4 quad), 150 ft upstream from Nome-Council Road, 0.1 mi upstream from mouth, and 60 mi East of Nome.	2.34		6-19-02 7-17-02 8-21-02	4.8 .85 .58

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements: Date	Measurements: Discharge (ft^3/s)
NORTHWEST ALASKA—Continued						
15583500 Etta Creek near Council	East Fork Solomon River	Lat 64°41′56″, long 164°09′57″, in NE1/4 NE1/4, sec. 24, T. 9 S., R 28 W. (Solomon C-5 quad), 100 ft upstream from Nome-Council Road, 0.2 mi upstream from mouth, and 25 mi southwest of Council.	1.33	2001	7-17-02 8-21-02	.59 .36
15585000 Goldengate Creek near Nome	Norton Sound	Lat 64°26′51″, long 165°03′14″, in SW1/4, sec. 15, T. 12 S., R. 32 W. (Nome B-1 quad), 80 ft upstream from culvert on Nome-Council Road and 11 mi southeast of Nome.	1.55	†1965 1966 †1986-88 †1990-2001	5-28-02	5.4
15624998 Arctic Creek above tributary near Nome	Cripple River	Lat 64°38′16″, long 165°42′42″, in NE1/4, sec. 8, T. 10 S., R. 35 W. (Nome C-2 quad), 300 ft upstream from culvert on Nome-Teller Road, 2 mi upstream from mouth, and 13 mi northwest of Nome.	1.13	† 1975, †1979-84, †1986-2001	8-20-02	.19
15633000 Washington Creek near Nome	Sinuk River	Lat 64°42′52″, long 165°49′13″, in NW1/4, sec. 14, T. 9 S., R. 35 W. (Nome C-2 quad), 400 ft upstream from culvert on Nome-Teller Road, and 19 mi northwest of Nome.	6.34	†1964-66, †1968-78, †1980-2001	5-29-02	17
15635000 Eldorado Creek near Teller	Tisuk River	Lat 64°57′38″, long 166°11′59″, in NE1/4 NE1/4, sec. 20, T.6 S., R.37 W. (Nome D-3 quad), 30 ft downstream from bridge at mi 46.3 of Nome-Teller Road, 0.5 mi upstream from mouth at Tisuk River and 21 mi south of Teller.	5.83	1986-87 ‡1988-90 1991 ‡1992-1998 †1999-2001	08-22-02	4.6
15746850 Square Creek near Kivalina	Wulik River	Lat 68°09′42″, long 163°07′59″, in NE1/4, sec. 24, T. 32 N., R. 19 W. (DeLong Mts. A-2 quad), 1.4 mi above mouth, 9 mi northwest of Red Dog Mine, 41 mi north of Noatak and 47 mi northeast of Kivalina. TeckCominco Station 214.	9.37	--	7-3-02	9.6
15746890 Competition Creek near Kivalina	Wulik River	Lat 68°07′58″, long 163°04′07″, in NW1/4, sec. 32, T. 32 N., R. 19 W. (DeLong Mts A-2 quad), 600 ft upstream from mouth, 7 mi northwest of Red Dog Mine, 39 mi north of Noatak, and 48 mi northeast of Kivalina. TeckCominco station 202.	6.85	2000-01	7-3-02	7.3
15746950 West Fork Upper Ikalukrok Creek near Kivalina	Ikalukrok Creek	Lat 68°10′19″, long 162°54′32″, in SE1/4, sec. 13, T. 32 N., R. 19 W. (DeLong Mts. A-2 quad), 7.6 mi above Red Dog Creek, 7 mi north of Red Dog Mine, 42 mi north of Noatak and 52 mi northeast of Kivalina. TeckCominco Station 205.	3.18	--	7-4-02	3.8
15746960 Upper Ikalukrok Creek near Kivalina	Wulik River	Lat 68°09′20″, long 162°51′41″, in SE1/4, sec. 19, T. 32 N., R. 18 W. (DeLong Mts. A-2 quad), 5.8 mi above Red Dog Creek, 6 mi north of Red Dog Mine, 40 mi north of Noatak and 52 mi northeast of Kivalina. TeckCominco Station 207.	14.0	--	7-3-02	20

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		NORTHWEST ALASKA—Continued				
15746980 Ikalukrok Creek above Red Dog Creek near Kivalina	Wulik River	Lat 68°05′38″, long 162°56′47″, in SE$^{1}/_{4}$, sec. 11, T. 31 N., R. 19 W. (DeLong Mts A-2 quad), 300 ft upstream from Red Dog Creek, 3 mi northwest of Red Dog Mine, 36 mi north of Noatak, and 50 mi northeast of Kivalina. Teck-Cominco Station 9.	59.2	‡1991-92, 1993-2001	6-2-02 7-3-02	240 100
15746983 Red Dog Mine Clean Water Ditch near Kivalina	Ikalukrok Creek	Lat 68°04′28″, long 162°51′35″, in NE$^{1}/_{4}$, sec. 19, T. 31 N., R. 18 W. (DeLong Mts A-2 quad), 500 ft downstream from outfall of clean water ditch, 300 ft northwest of Red Dog Mine mill site, 0.4 mi upstream from South Fork Red Dog Creek, 36 mi north of Noatak, and 50 mi northeast of Kivalina. TeckCominco station 140.	4.74 (total) 4.3 (contributing)	‡1991-92, 1993-2001	6-4-02 7-5-02 9-5-02	19 3.5 92
15746988 North Fork Red Dog Creek near Kivalina	Ikalukrok Creek	Lat 68°05′03″, long 162°52′52″, in SW$^{1}/_{4}$, sec. 18, T. 31 N., R. 18 W. (DeLong Mts. A-2 quad), 500 ft upstream from mouth, 1.1 mi northwest of Red Dog Mine, 36 mi north of Noatak, and 50 mi northeast of Kivalina. Teck-Cominco station 12.	15.9	‡1991-94, †1995-2001	6-4-02 7-5-02 9-5-02	53 7.6 199
15746990 Red Dog Creek above Mouth near Kivalina	Ikalukrok Creek	Lat 68°05′20″, long 162°55′30″, in NW$^{1}/_{4}$, sec. 13, T. 31 N., R. 19 W. (DeLong Mts. A-2 quad), 1000 ft upstream from mouth, 2.3 mi northwest of Red Dog Mine, 36 mi north of Noatak, and 50 mi northeast of Kivalina. Teck-Cominco Station 10.	24.6 (total) 21.4 (contributing)	‡1991-92, 1993-2001	6-5-02 7-2-02 7-4-02	96 48 29
1574699020 Ikalukrok Creek 0.6 mi below Red Dog Creek near Kivalina	Wulik River	Lat 68°05′09″, long 162°58′07″, in NE$^{1}/_{4}$, sec. 15, T. 31 N., R. 19 W. (DeLong Mts. A-2 quad), 0.6 mi downstream from Red Dog Creek, 3 mi northwest of Red Dog Mine, 36 mi north of Noatak, and 48 mi northeast of Kivalina. TeckCominco Station 150.	n	2001	7-2-02 9-8-02	193 849
15746995 Ikalukrok Creek 4.3 mi below Dudd Creek near Kivalina	Wulik River	Lat 67°58′06″, long 163°09′44″, in SE$^{1}/_{4}$, sec. 26, T. 30 N., R. 20 W. (Noatak. D-3 quad), 4.3 mi blw Dudd Creek, 11 mi southwest of Red Dog Mine, 28 mi north of Noatak and 39 mi northeast of Kivalina. TeckCominco Station 160.	147 (total) 140 (contributing)	--	6-2-02 7-2-02 9-8-02	347 328 1500
15746998 Tutak Creek near Kivalina	Wulik River	Lat 67°52′28″, long 163°40′14″, in NE$^{1}/_{4}$, sec. 34, T. 29 N., R. 22 W. (Noatak D-4 quad), 1,000 ft upstream from mouth, 28 mi northwest of Noatak, and 25 mi northeast of Kivalina.	119	1991, †1992-2001	6-3-02 6-30-02	147 10
		ARCTIC SLOPE ALASKA				
15875000 Colville River at Umiat	Beaufort Sea	Lat 69°21′38″, long 152°07′18″, in NW$^{1}/_{4}$, sec. 15, T. 1 S., R. 1 W. (Umiat B-4 quad), 1.0 mi upstream from Seabee Creek, and 1 mi east of Umiat.	13830	1953	6-15-02 8-20-02 8-21-02 8-21-02	m19,800 37,300 29,200 31,500

Discharge measurements made at partial-record stations and miscellaneous sites during water year 2002
[Footnotes at end on table on page 318]

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
ARCTIC SLOPE ALASKA—Continued						
15904900 Atigun River Tributary near Pump Station 4	Atigun River	Lat 68°22′25″, long 149°18′48″, in SE1/4, sec. 28, T. 12 S., R. 12 E. (Phillip Smith Mts. B-4 quad), 0.2 mi upstream from culvert at mi 265 on Dalton Highway, 0.9 mi upstream from mouth, and 4 mi south of Pump Station 4.	32.6	‡1977-86, †1987-91, †1994, †1996-99, †2001	5-24-02	192
15910300 Sagavanirktok River Tributary near Happy Valley Camp	Sagavanirk-tok River	Lat 69°09′38″, long 148°49′40″, in NE1/4, sec. 30, T. 3 S., R. 14 E. (Sagavanirktok A-4 quad), 500 ft upstream from culvert at mi 335.2 on Dalton Highway, 0.8 mi upstream from mouth, and 16 mi south of Sagwon.	12.7	†1997-2001	6-5-02 9-13-02	2.7 14

FOOTNOTES

- † Operated as a crest-stage partial-record station
- ‡ Operated as a continuous-record station
- + See analysis of samples collected at miscellaneous water-quality sites
- * Operated as a stage-only partial-record station
- a Approximately
- b Ponded water but no flow
- d Channel dry
- e Estimated
- f Low-flow partial-record station
- g Not previously published
- h Previously published as 15052482 Jordan Creek at Trout Street Bridge near Auke Bay
- j Ice effect
- m Discharge measurement provided by the Bureau of Land Management
- n To be determined
- o Discharge measurement provided by U.S. Fisha and Wildlife Service
- p Peak flow
- r Revised

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA

15049900 GOLD CREEK NEAR JUNEAU

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)
NOV													
16...	1230	9	9	24.2	32	20	--	149	7.9	2.0	3.5	8	.4
JAN													
03...	0930	9	9	34.0	29	20	3044	156	7.2	1.0	1.0	<1	.9
MAR													
07...	1430	9	9	16.1	9.4	10	3044	186	7.4	-5.0	.5	--	.4
MAY													
06...	1345	9	9	21.0	21	10	3044	134	7.5	9.5	4.5	2	.6
JUL													
17...	1150	9	9	44.5	170	10	3044	66	7.4	11.5	5.0	<1	.6
SEP													
10...	1050	9	9	47.8	118	10	3044	79	8.5	10.5	6.5	2	2.1
30...	1030	9	7	39.0	107	10	3044	116	7.8	.5	4.5	E5	1.7

Date	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV													
16...	738	13.2	103	70	19.3	5.33	.96	33	40	33	33.8	1.38	<.1
JAN													
03...	--	--	--	69	19.2	5.15	.92	34	40	33	33.1	.93	<.1
MAR													
07...	750	--	--	87	23.1	7.15	1.34	36	42	34	46.6	.85	<.1
MAY													
06...	755	--	--	61	17.2	4.29	1.01	30	37	30	27.4	.88	<.10
JUL													
17...	747	12.6	101	29	8.60	1.70	.48	19	22	18	12.8	.62	.04
SEP													
10...	750	11.6	96	39	11.4	2.49	.63	22	26	21	16.2	.53	.08
30...	752	12.3	96	55	15.3	3.95	.78	27	31	26	24.9	.39	<.10

Date	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
NOV													
16...	<.03	2.76	92	<.008	.40	--	<.02	<4	33.0	<.5	<8	<.8	<13
JAN													
03...	<.03	2.82	90	<.008	E.51	--	<.02	<2	35.1	<.5	<8	<.8	<13
MAR													
07...	<.03	2.92	104	<.008	.50	--	<.02	E1	37.4	<.5	<8	<.8	<13
MAY													
06...	<.03	2.89	70	<.008	.75	<.04	<.02	<2	36.4	<.5	<8	<.8	<13
JUL													
17...	<.01	1.50	37	<.008	.08	<.04	<.02	<2	20.3	<.5	<8	<.8	<13
SEP													
10...	<.01	1.97	48	<.008	.16	--	<.02	<2	26.7	<.5	<8	<.8	<13
30...	<.03	2.36	70	<.008	.23	<.04	<.02	<2	31.4	<.5	<8	<.8	<8

Date	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV													
16...	<6	<10	<.08	<4	<2.0	<.01	<50	<30	<4	<9	101	<8	<24
JAN													
03...	<6	<10	<.08	<4	<2.0	<.01	<50	<30	<2	<9	103	<8	<24
MAR													
07...	<6	<10	<.08	<4	<2.0	E.01	<50	<30	<2	<9	126	<8	<24
MAY													
06...	<6	<10	<.08	<4	<2.0	<.01	<50	<30	<2	<9	83.9	<8	<24
JUL													
17...	<6	<10	E.04	<4	<2.0	<.01	<50	<30	<2	<9	40.3	<8	<24
SEP													
10...	<6	<10	.08	<4	<2.0	<.01	<50	<30	<2	<9	54.6	<8	<24
30...	E6	<10	.09	<4	<2.0	<.01	<50	<30	<2	<9	78.7	<8	<24

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA—Continued

15052900 MENDENHALL RIVER AT BROTHERHOOD BRIDGE AT AUKE BAY

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)
NOV													
15...	0910	9	9	119	7.62	193	10	3044	2000	7.0	2.0	2.5	27
DEC													
05...	1100	9	9	81.0	7.29	116	10	3044	2800	7.1	-3.0	.5	25
MAR													
06...	1145	9	9	83.0	7.23	115	10	3044	740	7.0	-1.5	2.5	15
JUN													
04...	1415	9	9	220	10.16	2450	10	3054	49	7.5	11.0	4.5	58
AUG													
07...	1420	9	9	220	12.78	4060	10	3054	18	7.4	12.5	4.5	40

Date	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
NOV													
15...	733	11.1	85	21.8	32.5	36	44	36	.18	<.1	1.4	2650	M
DEC													
05...	741	11.0	79	26.7	50.8	43	51	41	.21	<.2	1.3	2220	<1
MAR													
06...	770	--	--	18.0	27.4	43	51	42	.24	<.1	1.3	2080	<1
JUN													
04...	756	13.0	101	6.28	2.09	30	34	28	<.10	<.1	2.7	4390	M
AUG													
07...	758	12.3	96	2.87	1.48	7	7	9	.12	E.1	3.8	3300	2

Date	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
NOV				
15...	69.7	<2	<.3	E20
DEC				
05...	67.5	<2	<.3	E30
MAR				
06...	66.1	<2	<.3	<20
JUN				
04...	63.8	<2	<.3	<20
AUG				
07...	60.7	<2	<.3	<20

15109029 UPPER PETERSON CREEK NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV 2001													
06...	1220	9	9	1.9	10	5.90	756	12.6	100	7.7	56	5.0	2.0
DEC													
27...	1052	H	9	--	--	--	--	--	--	--	--	--	--
JAN 2002													
02...	1030	F	9	--	--	--	760	6.2	--	--	--	--	--
MAR													
12...	1150	9	9	.60	10	4.80	747	12.5	88	7.1	56	.5	1.0
MAY													
17...	1150	H	9	--	--	--	--	--	--	--	--	--	--
JUL													
02...	1450	9	9	--	--	--	763	12.2	100	7.2	49	7.0	--
02...	1455	F	9	--	--	--	763	8.6	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA—Continued

15109029 UPPER PETERSON CREEK NEAR AUKE BAY—Continued

Date	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)	SAMPLER TYPE (CODE) (84164)
NOV 2001													
06...	.01	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
27...	--	0	1	2	8	17	26	37	53	72	90	100	8010
JAN 2002													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
12...	.0	--	--	--	--	--	--	--	--	--	--	--	8010
MAY													
17...	--	--	0	2	6	11	16	23	36	55	82	100	8010
JUL													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--

15109031 PETERSON CREEK TRIBUTARY NUMBER 8 NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV													
06...	1205	9	9	.60	10	4.10	756	12.2	92	7.6	37	3.0	6.0
DEC													
27...	1056	H	9	--	--	--	--	--	--	--	--	--	--
JAN													
02...	1000	F	9	--	--	--	760	1.4	--	--	--	--	--
MAR													
12...	1215	9	9	.10	10	6.00	747	9.5	66	6.7	49	.0	27
MAY													
17...	1155	H	9	--	--	--	--	--	--	--	--	--	--
JUL													
02...	1420	9	9	--	--	--	763	12.2	105	7.1	34	9.0	--
02...	1425	F	9	--	--	--	763	8.4	--	--	--	--	--

Date	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)	SAMPLER TYPE (CODE) (84164)
NOV												
06...	.01	--	--	--	--	--	--	--	--	--	--	8010
DEC												
27...	--	0	1	5	11	18	25	37	55	82	100	8010
JAN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
12...	.01	--	--	--	--	--	--	--	--	--	--	8010
MAY												
17...	--	--	--	--	--	--	0	13	38	87	100	8010
JUL												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--

15109033 PETERSON CREEK TRIBUTARY NUMBER 7 NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV													
06...	1207	9	9	.07	10	1.10	756	11.4	87	7.2	47	4.0	3.0
JAN													
02...	1100	F	9	--	--	--	760	5.5	--	--	--	--	--
MAR													
12...	1242	9	9	.10	10	1.50	747	9.0	63	6.8	53	.0	27
JUL													
02...	1345	9	9	--	--	--	763	11.7	99	7.4	44	8.0	--
02...	1350	F	9	--	--	--	763	8.4	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA—Continued

15109033 PETERSON CREEK TRIBUTARY NUMBER 7 NEAR AUKE BAY—Continued

Date	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SAMPLER TYPE (CODE) (84164)
NOV		
06...	.0	8010
JAN		
02...	--	--
MAR		
12...	.01	8010
JUL		
02...	--	--
02...	--	--

15109034 PETERSON CREEK BELOW TRIBUTARY 7 NR AUKE BAY AK

Date	Time	Medium code	Sample type	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
DEC 2001													
27...	1103	H	9	0	1	4	10	20	32	47	66	89	100
MAY 2002													
17...	1225	H	9	0	1	4	8	14	22	35	54	82	100

Date	SAMPLER TYPE (CODE) (84164)
DEC 2001	
27...	8010
MAY 2002	
17...	8010

15109035 PETERSON CREEK TRIBUTARY NUMBER 6 NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV													
06...	1214	9	9	.50	10	3.10	756	11.8	95	7.5	21	6.0	9.0
JAN													
02...	1130	F	9	--	--	--	760	5.6	--	--	--	--	--
MAR													
12...	1305	9	9	.20	10	3.50	747	10.8	76	7.1	56	.5	2.0
JUL													
02...	1330	9	9	--	--	--	763	11.8	98	7.2	43	7.5	--
02...	1335	F	9	--	--	--	763	8.8	--	--	--	--	--

Date	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SAMPLER TYPE (CODE) (84164)
NOV		
06...	.01	8010
JAN		
02...	--	--
MAR		
12...	.0	8010
JUL		
02...	--	--
02...	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA—Continued

15109036 PETERSON CREEK BELOW TRIBUTARY 6 NEAR AUKE BAY

Date	Time	Medium code	Sample type	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	SAMPLER TYPE (CODE) (84164)
DEC 2001													
27...	1111	H	9	0	2	12	26	36	48	69	95	100	8010
MAY 2002													
17...	1255	H	9	0	2	10	22	36	49	66	88	100	8010

15109037 PETERSON CREEK TRIBUTARY NUMBER 5 NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
NOV													
06...	1226	9	9	.02	10	756	9.6	72	6.9	15	3.0	16	.0
JAN													
02...	1200	F	9	--	--	760	5.0	--	--	--	--	--	--
JUL													
02...	1240	9	9	--	--	763	11.8	98	7.3	42	7.5	--	--
02...	1245	F	9	--	--	763	8.9	--	--	--	--	--	--

Date	SAMPLER TYPE (CODE) (84164)
NOV	
06...	8010
JAN	
02...	--
JUL	
02...	--
02...	--

15109038 PETERSON CREEK BELOW TRIBUTARY 5 NEAR AUKE BAY

Date	Time	Medium code	Sample type	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
DEC 2001													
27...	1115	H	9	0	1	3	9	14	22	32	45	64	89
MAY 2002													
17...	1320	H	9	--	0	1	4	7	15	25	42	68	95

Date	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)	SAMPLER TYPE (CODE) (84164)
DEC 2001		
27...	100	8010
MAY 2002		
17...	100	8010

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA—Continued

15109039 PETERSON CREEK TRIBUTARY NUMBER 4 NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV													
06...	1233	9	9	1.1	10	3.80	756	12.2	93	7.2	56	3.5	5.0
JAN													
02...	1230	F	9	--	--	--	760	5.8	--	--	--	--	--
MAR													
12...	1345	9	9	.30	10	2.90	747	11.2	78	7.0	59	.0	1.0
JUL													
02...	1215	9	9	--	--	--	763	11.8	97	7.2	43	7.0	--
02...	1220	F	9	--	--	--	763	8.8	--	--	--	--	--

Date	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SAMPLER TYPE (CODE) (84164)
NOV		
06...	.01	8010
JAN		
02...	--	--
MAR		
12...	.0	8010
JUL		
02...	--	--
02...	--	--

15109040 PETERSON CREEK BELOW TRIBUTARY 4 NEAR AUKE BAY

Date	Time	Medium code	Sample type	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
DEC 2001													
27...	1119	H	9	0	1	2	6	12	20	35	68	96	100
MAY 2002													
17...	1345	H	9	0	1	5	12	22	34	51	84	100	--

Date	SAMPLER TYPE (CODE) (84164)
DEC 2001	
27...	8010
MAY 2002	
17...	8010

15109041 PETERSON CREEK TRIBUTARY NUMBER 3 NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV													
06...	1240	9	9	1.2	10	4.60	756	12.0	95	7.5	60	5.0	3.0
JAN													
02...	1300	F	9	--	--	--	760	.3	--	--	--	--	--
MAR													
12...	1430	9	9	.40	10	3.90	747	10.7	75	7.2	60	.0	.0
JUL													
02...	1120	9	9	--	--	--	763	11.6	97	7.8	47	7.5	--
02...	1125	F	9	--	--	--	763	8.5	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA—Continued

15109041 PETERSON CREEK TRIBUTARY NUMBER 3 NEAR AUKE BAY—Continued

Date	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SAMPLER TYPE (CODE) (84164)
NOV		
06...	.01	8010
JAN		
02...	--	--
MAR		
12...	.0	8010
JUL		
02...	--	--
02...	--	--

15109042 PETERSON CREEK BELOW TRIBUTARY 3 NEAR AUKE BAY

Date	Time	Medium code	Sample type	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
DEC 2001													
27...	1140	H	9	0	1	6	15	22	35	53	75	95	100
MAY 2002													
17...	1410	H	9	--	0	3	8	20	27	44	67	94	100

Date	SAMPLER TYPE (CODE) (84164)
DEC 2001	
27...	8010
MAY 2002	
17...	8010

15109043 PETERSON CREEK TRIBUTARY NUMBER 2 NEAR AUKE BAY

Date	Time	Medium code	Sample type	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SAMPLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)
NOV													
06...	1245	9	9	.10	10	1.70	756	11.7	88	7.0	36	3.0	11
JAN													
03...	0920	F	9	--	--	--	760	2.2	--	--	--	--	--
JUL													
02...	1040	9	9	--	--	--	763	11.5	96	7.9	45	7.5	--
02...	1045	F	9	--	--	--	763	8.7	--	--	--	--	--

Date	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SAMPLER TYPE (CODE) (84164)
NOV		
06...	.0	8010
JAN		
03...	--	--
JUL		
02...	--	--
02...	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA—Continued

15109044 PETERSON CREEK BELOW TRIBUTARY 2 NEAR AUKE BAY

Date	Time	Medium code	Sample type	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	SAMPLER TYPE (CODE) (84164)
DEC 2001													
27...	1148	H	9	0	1	6	13	29	50	74	96	100	8010
MAY 2002													
17...	1440	H	9	0	1	9	22	41	57	76	94	100	8010

1510904480 NORTH FORK PETERSON CREEK BELOW BEAVER SLOUGH NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
JAN													
17...	0930	H	9	--	--	--	--	--	--	--	--	--	--
MAY													
31...	1200	H	9	--	--	--	--	--	--	--	--	--	--
JUL													
02...	1547	9	9	--	8010	--	763	11.9	100	8.1	45	8.0	--

Date	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)	SAMPLER TYPE (CODE) (84164)
JAN												
17...	--	3	6	9	11	15	22	35	53	87	100	8010
MAY												
31...	--	1	3	6	9	13	18	26	45	72	100	8010
JUL												
02...	--	--	--	--	--	--	--	--	--	--	--	--

15109045 NORTH FORK PETERSON CREEK NEAR AUKE BAY

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	STREAM WIDTH (FT) (00004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV													
06...	1345	9	9	1.9	10	8.10	756	12.2	91	7.2	43	3.0	7
DEC													
27...	0945	H	9	--	--	--	--	--	--	--	--	--	--
27...	1000	F	9	--	--	--	755	4.8	--	--	--	--	--
MAR													
12...	1515	9	9	.40	10	7.80	747	11.9	83	6.8	56	.0	14
MAY													
31...	1145	H	9	3.2	--	9.00	--	--	--	--	--	5.5	--
JUL													
02...	1555	9	9	--	--	--	763	11.5	99	7.2	37	9.0	--
02...	1600	F	9	--	--	--	763	7.4	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTHEAST ALASKA—Continued

15109045 NORTH FORK PETERSON CREEK NEAR AUKE BAY—Continued

Date	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)	SAMPLER TYPE (CODE) (84164)
NOV												
06...	.04	--	--	--	--	--	--	--	--	--	--	--
DEC												
27...	--	.0	1	4	14	28	43	61	80	100	--	8010
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
12...	.02	--	--	--	--	--	--	--	--	--	--	--
MAY												
31...	--	.0	1	4	9	13	20	33	54	92	100	8010
JUL												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA

601105149385100 EXIT GLACIER CREEK TRIBUTARY AT MILE .6 HARDING TRAIL NEAR SEWARD

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SAMPLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	PURPOSE SITE VISIT, (CODE) (50280)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT													
02...	1340	9	9	11.5	3.0	70	8010	1006	112	7.0	4.5	746	12.5

Date	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	ENTEROCOCCI, ME MF, WATER (COL/100 ML) (31649)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT													
02...	99	<1	<1	5	54	20.0	.991	1.52	.19	7.9	.59	<.1	5.16

Date	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT											
02...	62	<.002	.068	<.015	<.10	<.10	<.004	.005	<.007	<10	<2.0

601105149382400 EXIT GLACIER CREEK CHANNEL AT MILE .1 HARDING TRAIL NEAR SEWARD

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SAMPLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	PURPOSE SITE VISIT, (CODE) (50280)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)
OCT													
02...	1415	9	9	5.00	1.5	70	8010	1006	112	7.8	8.0	5.0	753

Date	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	ENTEROCOCCI, ME MF, WATER (COL/100 ML) (31649)
OCT					
02...	12.4	98	1	<1	4

15274796 SOUTH BRANCH OF SOUTH FORK CHESTER CREEK AT TANK TRAIL NEAR ANCHORAGE

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SAMPLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	PURPOSE SITE VISIT, (CODE) (50280)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)
APR													
19...	1210	9	9	6.00	1.3	50	8010	1004	129	7.7	1.0	752	--
MAY													
13...	1500	9	9	9.00	3.6	--	--	--	116	7.5	6.5	752	12.0
JUN													
01...	1140	9	9	4.60	7.3	8010	3045	--	94	7.3	5.0	753	12.4
JUL													
10...	1220	9	7	7.50	E3.0	10	3045	--	123	7.7	7.0	755	11.9
10...	1230	H	9	7.50	--	8010	8010	--	123	7.7	7.0	755	11.9
25...	1500	9	9	7.50	3.7	70	--	--	123	7.6	8.0	751	11.6
AUG													
16...	1426	9	9	7.30	3.3	70	--	--	123	7.2	7.5	760	12.0
30...	1536	9	9	7.40	3.4	8010	210	--	123	7.3	7.5	749	11.6
SEP													
04...	1230	9	9	7.50	3.3	10	3045	--	123	7.4	7.0	760	11.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA—Continued

15274796 SOUTH BRANCH OF SOUTH FORK CHESTER CREEK AT TANK TRAIL NEAR ANCHORAGE-—Continued

Date	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	ENTERO-COCCI, ME MF, WATER (COL/ 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
APR													
19...	--	--	--	--	60	18.3	3.56	1.91	59	.50	51	--	49
MAY													
13...	99	S6	S7	S1	54	16.4	3.19	1.70	46	.64	54	--	45
JUN													
01...	98	S2	<1	--	42	12.9	2.46	1.43	32	.46	37	--	31
JUL													
10...	99	S6	S3	S9	--	--	--	--	46	--	52	--	43
10...	99	--	--	--	--	--	--	--	--	--	--	--	--
25...	99	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
16...	100	--	--	--	--	--	--	--	--	--	--	--	--
30...	98	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
04...	96	E13	S7	--	58	17.8	3.27	1.84	46	.39	57	.0	46

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
APR													
19...	13.3	.37	E.06	11.1	87	77	<.002	.554	<.015	.10	<.10	.010	.005
MAY													
13...	9.1	.74	<.10	10.4	88	74	<.002	1.12	<.015	.23	.10	.015	.005
JUN													
01...	8.6	.46	<.10	9.65	63	59	<.002	1.18	<.015	.18	.12	.010	E.004
JUL													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
04...	13.0	.41	E.07	11.0	85	78	<.002	.500	<.015	.73	E.10	.006	E.004

Date	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	ALUM-INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI-MONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYL-LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CHRO-MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)
APR													
19...	E.005	<10	<2.0	.9	--	--	--	--	--	--	--	--	--
MAY													
13...	<.007	11	E1.1	3.7	--	--	--	--	--	--	--	--	--
JUN													
01...	<.007	12	<2.0	2.9	--	--	--	--	--	--	--	--	--
JUL													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	6.1	.5	12	500	1.2	<1	.2	110	31
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
04...	<.007	E7	<2.0	2.0	--	--	--	--	--	--	--	--	--

Date	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	EURO-PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA-NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE-SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA-NESE BOT MAT <63U WS FIELD (UG/G) (34905)
APR													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	2.5	14	31	<1	<1	13	<1	3.7	16	8	27	1.2	980
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA—Continued

15274796 -- SOUTH BRANCH OF SOUTH FORK CHESTER CREEK AT TANK TRAIL NEAR ANCHORAGE—Continued

Date	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)
APR													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	.19	1.5	17	33	11	.150	16	2.2	.1	1.8	320	.12	<1
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITA- NIUM, SED, BM WS,<63U DRY WGT REC PERCENT (49274)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER- CENT) (49266)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER- CENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC PERCENT (49267)
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
MAY											
13...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
10...	3	2	.480	2.0	130	15	1	87	7.2	.08	7.2
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
16...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--

15276250 SHIP CREEK BELOW COTTONWOOD PARK NEAR ANCHORAGE

Date	Time	STREAM WIDTH (FT) (00004)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	START- ING TIME (2400 HOURS) (82073)	END- ING TIME (2400 HOURS (82074)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY													
30...	1230	50.6	29.0	1048.00	1230.00	555	20	3054	17.0	6.0	15	22.5	68

Date	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY) (80225)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT (04122)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	VER- TICALS IN COM- POSITE SAMPLE (NUM) (04119)	HORI- ZONTAL WIDTH OF VER- TICAL (FEET) (04121)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)	BAG MESH SIZE BEDLOAD SAMPLER (MM) (30333)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE) (04117)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM (80228)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM (80231)
MAY													
30...	40	2.05	2	1	21	1.0	60	.250	.0	.0	12	38	69

Date	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM (80235)
MAY				
30...	85	92	96	100

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA—Continued

15283550 MOOSE CREEK ABOVE WISHBONE HILL NEAR SUTTON

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	PURPOSE SITE VISIT, (CODE) (50280)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM OF HG) (00025)
OCT 12...	1130	9	9	45	10	3045	1099	90	7.3	.3	<1	1.2	721

Date	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT 12...	14.0	102	38	13.2	1.33	2.35	30	.38	36	28	9.4	2.23	<.1

Date	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)
OCT 12...	5.43	54	53	<.002	.170	<.015	E.05	<.10	<.004	<.004	<.007	E20	E1

Date	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
OCT 12...	27.8	<2	<.1	<.8	<1.0	E10	<10	<1	<2.4	<2.0	<.01	<2.0	<2

Date	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT 12...	<.3	<20	.5	.2	<.02	<.01	1.0	.12

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA—Continued

15283700 MOOSE CREEK NEAR PALMER

Date	Time	Medium code	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	PURPOSE SITE VISIT, (CODE) (50280)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM OF HG) (00025)
OCT													
12...	1330	9	9	62	10	3045	1099	105	7.7	.6	<1	.9	749

Date	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT													
12...	14.1	100	45	14.5	2.02	3.96	40	.44	51	39	8.4	1.98	<.1

Date	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)
OCT													
12...	5.80	64	63	<.002	.201	<.015	E.07	<.10	<.004	<.004	<.007	E30	E1

Date	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
OCT													
12...	25.7	<2	<.1	<.8	E1.0	50	18	<1	E1.9	E1.2	<.01	<2.0	<2

Date	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT								
12...	<.3	E20	.9	.2	<.02	<.01	1.0	.17

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

YUKON ALASKA

15389000 PORCUPINE RIVER NEAR FORT YUKON

Date	Time	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	SAMPLE LOC- ATION, CROSS SECTION (FT FM R BK) (72103)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
MAR									
11...	1705	--	280.0	405	7.2	.0	755	6.0	41
11...	1720	--	220.0	382	7.4	.0	755	6.1	42
11...	1728	--	160.0	377	7.4	.0	755	6.2	43
JUN									
06...	1627	1010	--	140	7.8	13.6	760	8.8	85
06...	1628	890	--	142	7.8	13.4	760	8.8	84
06...	1630	780	--	144	7.8	13.3	760	8.8	84
06...	1632	630	--	145	7.8	13.5	760	8.8	85
06...	1634	420	--	145	7.8	13.5	760	8.8	85
18...	1605	--	1094	135	7.8	11.7	757	10.6	98
18...	1610	--	861.0	136	7.8	11.6	757	10.3	95
18...	1612	--	618.0	138	7.8	11.5	757	10.3	95
18...	1631	--	415.0	139	7.8	11.6	757	10.3	95
18...	1634	--	205.0	141	7.8	11.7	757	10.3	96
26...	1420	--	950.0	125	7.8	11.9	746	11.2	106
26...	1423	--	705.0	128	7.8	11.9	746	11.5	109
26...	1425	--	485.0	130	7.8	11.9	746	11.6	110
26...	1427	--	295.0	131	7.8	12.0	746	11.3	107
26...	1428	--	105.0	132	7.8	12.0	746	11.6	110
AUG									
13...	1556	--	1120	216	8.1	11.7	754	9.9	92
13...	1600	--	850.0	216	8.0	11.6	754	9.9	92
13...	1604	--	700.0	217	8.0	11.7	754	9.9	92
13...	1608	--	540.0	217	8.0	11.7	754	9.9	93
13...	1610	--	365.0	217	8.0	11.7	754	10.0	93
SEP									
27...	1315	--	1050	242	8.0	5.5	743	12.4	101
27...	1322	--	850.0	242	8.0	5.3	743	12.2	99
27...	1330	--	650.0	243	8.0	5.3	743	12.3	99
27...	1337	--	450.0	243	8.0	5.3	743	12.2	99
27...	1345	--	250.0	243	8.0	5.3	743	12.3	100

Date	Time	Medium code	Sample type	STREAM WIDTH (FT) (00004)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	QUALITY ASSUR- ANCE DATA INDICA- TOR CODE (99111)	REP- LICATE TYPE (CODE) (99105)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)
MAR													
11...	1730	9	9	500	806	60	3060	--	--	399	7.6	-13.0	.0
JUN													
06...	1500	9	9	1120	28800	20	3055	30	--	143	7.8	--	13.5
18...	1430	9	9	1440	43700	20	3055	30	10.00	138	7.8	--	11.7
26...	1310	9	9	--	48900	20	3055	30	--	130	7.8	--	11.9
AUG													
13...	1430	9	9	1270	18500	20	3055	30	--	217	8.0	--	11.7
26...	1400	9	9	--	--	20	3055	100	--	--	7.9	--	--
SEP													
27...	1200	9	9	1100	10700	20	3045	30	--	243	8.0	--	5.3

Date	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB- ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB- ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)
MAR													
11...	4.2	.046	.031	755	6.1	42	200	58.8	12.3	4.24	160	.54	190
JUN													
06...	41	.302	.225	760	8.8	85	70	21.4	3.92	1.38	51	.70	62
18...	57	.478	.354	757	10.3	96	68	19.8	4.57	1.83	41	.45	50
26...	80	.504	.374	746	11.6	110	71	21.8	4.07	1.30	48	.38	56
AUG													
13...	21	.222	.163	754	9.9	92	110	28.9	7.99	2.45	56	.52	68
26...	27	.366	.271	--	--	--	99	28.8	6.44	1.96	60	.35	72
SEP													
27...	9.8	.271	.198	743	12.3	100	120	37.3	7.63	2.54	96	.42	116

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

YUKON ALASKA—Continued

15389000 PORCUPINE RIVER NEAR FORT YUKON—Continued

Date	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)
MAR													
11...	.0	160	34.2	3.53	E.1	4.28	230	213	<.002	.218	<.015	E.09	E.06
JUN													
06...	.0	51	15.1	.71	E.07	2.39	103	76	E.002	.030	<.015	.53	.27
18...	.0	41	20.9	.41	E.08	3.11	110	76	E.002	E.011	<.015	.54	.35
26...	.0	46	16.9	.67	<.10	3.18	108	76	.003	.026	<.015	.65	.31
AUG													
13...	.0	56	47.8	.83	E.11	3.16	147	126	E.002	.037	<.015	.26	.19
26...	.0	59	30.5	.60	<.10	4.04	136	108	E.002	.030	<.015	.29	.25
SEP													
27...	.0	95	34.6	1.02	E.08	3.77	160	145	E.002	.017	<.015	.21	.23

Date	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	NITROGEN, TOTAL, SEDIMNT SUSP, (WEIGHT PERCNT) (62845)	PHOSPHORUS SEDIMENT SUSP. PERCENT (30292)	ALUMINUM SED,SUS PERCENT (30221)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTIMONY SED. SUSP. (UG/G) (29816)	ANTIMONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC SED. SUSP. (UG/G) (29818)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM SED. SUSP. (UG/G) (29820)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
MAR													
11...	E.003	E.003	<.007	--	--	--	3	--	.06	--	1.4	--	91
JUN													
06...	.080	.008	<.007	.31	.100	7.2	19	1.1	.14	14	.4	910	40
18...	.070	.008	<.007	.28	.090	7.4	52	1.4	.12	16	.4	1200	39
26...	.146	.010	<.007	.23	.100	7.2	41	1.2	.12	17	.4	870	40
AUG													
13...	.036	.005	<.007	.35	.120	8.6	16	1.0	.06	16	.3	1000	50
26...	.048	.006	<.007	--	.110	7.4	46	1.5	.11	15	.3	1100	49
SEP													
27...	.008	E.003	<.007	--	.140	7.3	33	1.6	.14	25	.3	1200	58

Date	BERYLLIUM SED. SUSP. (UG/G) (29822)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM SED. SUSP. (UG/G) (29826)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM SED. SUSP. (UG/G) (29829)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT SEDIMENT SUSP. (UG/G) (35031)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER SED. SUSP. (UG/G) (29832)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON SEDIMENT SUSP. PERCENT (30269)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
MAR													
11...	--	<.06	11	--	E.04	--	<.8	--	.15	--	.8	--	11
JUN													
06...	2	<.06	E6	.7	<.04	110	<.8	16	.07	30	1.7	3.9	135
18...	2	<.06	E5	.6	<.04	120	<.8	17	.11	30	2.8	3.8	204
26...	2	<.06	E4	.5	<.04	110	<.8	16	.12	29	2.6	4.0	178
AUG													
13...	2	<.06	E6	.7	<.04	130	<.8	19	.12	31	1.6	4.8	66
26...	2	<.06	E7	1.0	E.02	150	<.8	22	.12	43	1.9	4.3	173
SEP													
27...	3	<.06	7	2.0	<.04	210	<.8	35	.16	83	1.9	7.2	123

Date	LEAD SED. SUSP. (UG/G) (29836)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM SEDIMENT SUSP. (UG/G) (35050)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE SED. SUSP. (UG/G) (29839)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY SED. SUSP. (UG/G) (29841)	MOLYBDENUM SED. SUSP. (UG/G) (29843)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL SED. SUSP. (UG/G) (29845)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM SED. SUSP. (UG/G) (29847)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)
MAR													
11...	--	.29	--	6.7	--	15.7	--	--	.8	--	.47	--	.5
JUN													
06...	23	.11	65	2.1	670	2.1	.07	2	.7	58	1.85	1	E.3
18...	24	E.05	60	2.9	560	2.8	.08	4	.7	76	3.06	1	<.3
26...	25	.11	60	2.3	590	3.1	.07	2	.3	56	2.53	1	<.3
AUG													
13...	29	<.08	86	4.8	820	2.4	.08	4	.3	64	2.25	1	E.3
26...	32	E.06	62	3.5	790	3.8	.88	6	.4	120	3.00	2	.4
SEP													
27...	31	<.08	61	4.9	1900	3.8	--	11	.5	230	2.94	4	E.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

YUKON ALASKA—Continued

15389000 PORCUPINE RIVER NEAR FORT YUKON—Continued

Date	SILVER SED. SUSP. (UG/G) (29850)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM SEDI-MENT SUSP. (UG/G) (35040)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	THAL-LIUM SUS SED (UG/G) (49955)	TITA-NIUM SEDI-MENT SUSP. PERCENT (30317)	VANA-DIUM SED. SUSP. (UG/G) (29853)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC SED. SUSP. (UG/G) (29855)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM SEDI-MENT SUSP. (UG/G) (35046)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
MAR													
11...	--	<1	--	160	--	--	--	<.2	--	4	--	.87	2.0
JUN													
06...	<.5	<1	110	58.3	<50	.420	180	.8	190	<1	<50	.29	8.2
18...	11	<1	120	61.7	<50	.450	200	.3	230	2	<50	.22	13.0
26...	M	<1	120	63.0	<50	.470	170	.6	170	1	<50	.28	14.0
AUG													
13...	M	<1	150	107	<50	.430	210	.4	190	3	<50	.24	7.7
26...	<1	<1	140	93.0	<100	.440	230	.6	350	3	<100	.30	11.0
SEP													
27...	2	<1	160	103	<100	.420	220	.2	680	3	<100	.51	8.8

Date	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON SED. SUSP. PERCENT (30244)	CARBON, ORGANIC SUS-PENDED, TOTAL PERCENT (50465)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	SEDI-MENT SUSP., FLOW-THROUGH CENTRIF (MG/L) (50279)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR										
11...	<.1	<.1	<.1	--	--	<.02	--	1.0	2.2	--
JUN										
06...	.2	1.9	2.1	4.1	3.5	.16	65	68	5290	93
18...	<.1	2.1	2.2	3.4	3.4	.19	75	76	8970	90
26...	<.1	3.2	3.3	3.0	2.9	.26	127	130	17200	95
AUG										
13...	<.1	1.1	1.1	3.7	3.8	.10	23	28	1400	99
26...	<.1	1.3	1.3	--	--	.11	32	40	--	90
SEP										
27...	<.1	.3	.3	--	--	.02	2	6.0	173	88

15518020 HEALY CREEK AT SUNTRANA

Date	Time	STREAM WIDTH (FT) (00004)	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT											
05...	1315	35.5	18.79	145	10	3001	6.5	10.0	71	27.8	57

1556488224 CONTACT CREEK BELOW LITTLE CONTACT CREEK AT ANAKTUVUK PASS

Date	Time	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	TEMPER-ATURE WATER (DEG C) (00010)
JUN													
18...	1710	1028	80020	2250	60	10	702	12.2	8.3	8.1	110	111	6.7
JUL													
17...	0940	1028	80020	2250	107	10	706	--	7.6	8.0	118	116	5.9
SEP													
10...	1630	1028	80020	2250	62	10	697	11.4	7.9	8.0	135	141	2.6

Date	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
JUN													
18...	17.9	2.47	E.10	.20	54	50	51	65	<.30	<.10	1.18	4.0	59
JUL													
17...	18.8	2.74	.11	.22	57	55	56	72	<.30	<.10	1.26	4.5	62
SEP													
10...	22.4	3.44	.14	.33	66	63	63	82	<.30	E.07	1.45	7.9	77

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

YUKON ALASKA—Continued

1556488224 -- CONTACT CREEK BELOW LITTLE CONTACT CREEK AT ANAKTUVUK PASS—Continued

Date	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE PURPOSE CODE (71999)	SAMPLER TYPE (CODE) (84164)
JUN													
18...	<.015	<.10	E.08	.029	<.002	E.003	<.007	.009	1.0	<10	<2.0	10.00	3045
JUL													
17...	<.015	<.10	E.05	.014	<.002	E.003	<.007	.006	1.0	<10	<2.0	--	3045
SEP													
10...	<.015	E.08	<.10	.054	<.002	<.004	<.007	E.003	1.1	<10	<2.0	--	3045

680837151435000 CONTACT CREEK AT MAIN STREET AT ANAKTUVUK PASS

Date	Time	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	TEMPER-ATURE WATER (DEG C) (00010)
JUN													
18...	2000	1028	80020	2250	49	10	702	12.1	8.4	8.1	115	118	6.2
JUL													
17...	1125	1028	80020	2250	93	10	708	--	8.0	8.0	112	118	7.3
SEP													
10...	1900	1028	80020	2250	23	10	697	10.8	8.0	8.0	133	141	2.6

Date	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
JUN													
18...	18.9	2.62	.11	.22	56	53	53	69	<.30	<.10	1.14	4.2	60
JUL													
17...	19.0	2.78	.11	.22	58	54	55	70	<.30	<.10	1.25	4.5	69
SEP													
10...	22.6	3.46	.14	.34	66	62	62	81	<.30	E.06	1.47	7.8	79

Date	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE PURPOSE CODE (71999)	SAMPLER TYPE (CODE) (84164)
JUN													
18...	<.015	<.10	E.06	.030	<.002	E.003	<.007	.006	.9	<10	<2.0	10.00	3045
JUL													
17...	<.015	<.10	E.06	.013	<.002	E.002	<.007	.005	.9	<10	<2.0	--	3045
SEP													
10...	<.015	E.07	E.05	.049	<.002	<.004	<.007	E.003	1.0	<10	<2.0	--	3045

680754151442100 CONTACT CREEK ABOVE INUKPASUGRUK CREEK AT ANAKTUVUK PASS

Date	Time	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	TEMPER-ATURE WATER (DEG C) (00010)
JUN													
19...	1350	1028	80020	2050	35	10	704	12.6	8.4	8.1	139	146	5.3
JUL													
16...	1635	1028	80020	2050	107	10	708	--	8.0	8.0	130	141	8.0
SEP													
11...	1600	1028	80020	2050	42	10	696	12.0	8.1	7.7	167	170	3.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

YUKON ALASKA—Continued

680754151442100 CONTACT CREEK ABOVE INUKPASUGRUK CREEK AT ANAKTUVUK PASS—Continued

Date	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
JUN 19...	23.4	3.45	.12	.25	69	66	66	86	<.30	<.10	1.33	5.8	76
JUL 16...	23.1	3.40	.14	.26	67	63	64	82	<.30	<.10	1.38	5.8	80
SEP 11...	27.7	4.19	.15	.42	81	76	78	99	<.30	<.10	1.57	9.9	91

Date	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE PURPOSE CODE (71999)	SAMPLER TYPE (CODE) (84164)
JUN 19...	<.015	<.10	<.10	.063	<.002	<.004	<.007	.006	.7	<10	<2.0	10.00	3045
JUL 16...	<.015	<.10	<.10	.040	<.002	<.004	<.007	.006	.9	<10	<2.0	--	3045
SEP 11...	<.015	E.08	<.10	.070	<.002	<.004	<.007	E.003	.8	<10	E.9	--	3045

680752151450200 JOHN RIVER TRIBUTARY AT ANAKTUVUK PASS

Date	Time	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
SEP 11...	1100	1028	80020	.70	10	696	11.4	6.6	7.5	94	103	2.9	15.4

Date	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
SEP 11...	2.79	.22	.46	48	45	46	58	.34	<.10	1.84	3.8	66	<.015

Date	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLER TYPE (CODE) (84164)
SEP 11...	.14	.17	.180	<.002	<.004	<.007	E.003	4.7	46	E1.6	3045

680735151444400 INUKPASUGRUK CREEK AT ANAKTUVUK PASS

Date	Time	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	TEMPER-ATURE WATER (DEG C) (00010)
JUN 19...	1155	1028	80020	2050	93	10	704	13.1	8.2	7.9	148	153	4.4
JUL 16...	1445	1028	80020	2050	161	10	708	--	7.9	7.9	154	164	9.3
SEP 11...	1430	1028	80020	2050	137	10	696	12.1	8.0	7.9	185	191	1.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

YUKON ALASKA—Continued

680735151444400 INUKPASUGRUK CREEK AT ANAKTUVUK PASS—Continued

Date	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
JUN 19...	19.0	5.57	.25	.82	48	47	48	61	<.30	<.10	1.68	25.5	86
JUL 16...	20.9	6.09	.32	.97	52	49	50	64	<.30	E.06	1.94	28.5	98
SEP 11...	25.3	7.42	.32	1.13	60	56	57	73	<.30	<.10	2.07	37.3	117

Date	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SAMPLE PURPOSE CODE (71999)	SAMPLER TYPE (CODE) (84164)
JUN 19...	<.015	<.10	<.10	.052	<.002	<.004	<.007	.008	.7	<10	<2.0	10.00	3045
JUL 16...	<.015	<.10	<.10	.033	<.002	<.004	<.007	.004	.8	<10	<2.0	--	3045
SEP 11...	<.015	E.06	E.06	.044	<.002	<.004	<.007	E.002	1.0	<10	<2.0	--	3045

680715151463000 JOHN RIVER BELOW INUKPASUGRUK CREEK AT ANAKTUVUK PASS

Date	Time	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	TEMPER- ATURE WATER (DEG C) (00010)
JUN 19...	1000	1028	80020	2050	171	10	704	13.4	8.0	7.9	156	162	3.6
JUL 16...	1130	1028	80020	2050	270	10	710	--	8.0	7.8	150	160	8.7
SEP 11...	1230	1028	80020	2050	179	10	696	11.8	7.8	7.9	185	192	2.4

Date	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
JUN 19...	22.6	5.17	.51	.77	61	58	58	75	<.30	<.10	1.65	18.8	91
JUL 16...	24.2	4.73	.22	.66	67	62	62	81	<.30	E.06	1.69	14.3	94
SEP 11...	29.0	6.08	.24	.92	78	74	75	96	E.19	<.10	1.91	23.3	115

Date	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SAMPLE PURPOSE CODE (71999)	SAMPLER TYPE (CODE) (84164)
JUN 19...	<.015	<.10	<.10	.068	<.002	<.004	<.007	.010	.7	<10	<2.0	10.00	3045
JUL 16...	<.015	<.10	<.10	.068	<.002	E.003	<.007	E.004	.9	E8	<2.0	--	3045
SEP 11...	<.015	E.06	E.08	.084	<.002	<.004	<.007	E.002	1.1	<10	E.9	--	3045

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

NORTHWEST ALASKA

673612163564000 NEW HEART CREEK AT PORT ACCESS ROAD NEAR KIVALINA

Date	Time	Medium code	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)
JUL													
29...	1050	9	1028	80020	175	.20	10	774	12.0	7.0	7.9	376	381
29...	1230	H	1028	80020	175	--	--	--	--	--	--	--	--

Date	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	ALKA- LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)
JUL													
29...	10.2	69.1	9.47	.32	1.77	--	--	--	--	165	160	160	208
29...	--	--	--	--	--	2.2	.860	1.6	.390	--	--	--	--

Date	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)
JUL													
29...	2.76	<.10	3.15	45.2	--	245	E.013	.14	.13	.071	<.002	E.002	<.007
29...	--	--	--	--	.09	--	--	--	--	--	--	--	--

Date	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER- CENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER- CENT) (49266)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
JUL													
29...	E.002	--	3.5	--	--	--	<20	.05	<.8	.8	E6	E.05	E2.0
29...	--	.078	--	.70	3.0	2.3	--	--	--	--	--	--	--

Date	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	ALUM- INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI- MONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
JUL													
29...	5	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	5.9	.8	10	1100	2.1	<1	2.0	50	100	17	22	1

Date	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)
JUL													
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	14	<1	<1	3.4	30	79	54	720	.11	.6	27	61	8

Date	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL- LIUM BED MAT D SIEVE <63 U TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITA- NIUM, SED, BM WS,<63U DRY WGT REC PERCENT (49274)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020
JUL													
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	13	1.2	.3	160	<1	<1	9	2	.230	110	2	20	500

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

NORTHWEST ALASKA—Continued

673612163564000 NEW HEART CREEK AT PORT ACCESS ROAD NEAR KIVALINA—Continued

Date	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
JUL	
29...	--
29...	2.6

673603163565900 SOUTH FORK NEW HEART CREEK AT PORT ACCESS ROAD NEAR KIVALINA

Date	Time	Medium code	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE-SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS-SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	PHOS-PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER-CENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC PERCENT (49267)
JUL													
29...	1345	H	1028	80020	175	2.2	.730	1.6	.320	.11	.088	.65	4.0

Date	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER-CENT) (49266)	ALUM-INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI-MONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYL-LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO-MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO-PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
JUL													
29...	3.3	6.0	1.1	10	1100	2.2	<1	3.8	48	120	14	25	1

Date	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA-NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA-NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB-DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM-IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)
JUL													
29...	14	<1	<1	3.6	25	140	52	710	.21	.8	25	51	9

Date	SCAN-DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON-TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA-LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL-LIUM BED MAT D SIEVE <63 U TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITA-NIUM, SED, BM WS,<63U DRY WGT REC PERCENT (49274)	VANA-DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTER-BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
JUL													
29...	14	1.9	.4	190	<1	<1	9	3	.240	120	2	21	890

Date	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
JUL	
29...	2.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

NORTHWEST ALASKA—Continued

673641163554500 NORTH FORK NEW HEART CREEK AT PORT ACCESS ROAD NEAR KIVALINA

Date	Time	Medium code	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER- CENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC PERCENT (49267)
JUL													
29...	1415	H	1028	80020	275	1.2	.780	1.7	.400	.16	.150	.34	4.3

Date	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER- CENT) (49266)	ALUM- INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI- MONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
JUL													
29...	4.0	6.1	1.1	13	1100	2.1	<1	2.1	52	150	14	76	1

Date	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)
JUL													
29...	15	<1	<1	3.1	30	66	52	580	.20	1.3	28	62	12

Date	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL- LIUM BED MAT D SIEVE <63 U TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITA- NIUM, SED, BM WS,<63U DRY WGT REC PERCENT (49274)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
JUL													
29...	14	6.0	.8	160	<1	<1	10	3	.230	130	2	23	740

Date	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
JUL	
29...	3.6

674326163375900 OMIKVIOROK RIVER AT PORT ACCESS ROAD NEAR KIVALINA

Date	Time	Medium code	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)
JUL													
28...	1015	9	1028	80020	325	7.8	10	761	11.0	7.1	7.9	177	189
28...	1100	H	1028	80020	325	--	--	--	--	--	--	--	--

Date	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	ALKA- LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)
JUL													
28...	10.5	27.8	6.02	.23	1.61	--	--	--	--	90	90	90	117
28...	--	--	--	--	--	.660	.770	1.3	.770	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

NORTHWEST ALASKA—Continued

674326163375900 OMIKVIOROK RIVER AT PORT ACCESS ROAD NEAR KIVALINA—Continued

Date	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)
JUL													
28...	1.85	<.10	4.71	6.7	--	108	<.015	E.08	E.07	.165	<.002	<.004	<.007
28...	--	--	--	--	.05	--	--	--	--	--	--	--	--

Date	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS BOT MAT <63U WS FIELD PERCENT (34935)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, INORG, SED, BM WS,<63U DW, REC (PERCENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PERCENT) (49266)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
JUL													
28...	E.003	--	1.9	--	--	--	<20	E.03	<.8	.6	E8	.18	E2.0
28...	--	.072	--	.07	2.5	2.5	--	--	--	--	--	--	--

Date	ZINC, DISSOLVED (UG/L AS ZN) (01090)	ALUMINUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTIMONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYLLIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHROMIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EUROPIUM BOT MAT <63U WS FIELD (UG/G) (34855)
JUL													
28...	2	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	5.8	.8	10	960	1.8	<1	.9	58	97	17	22	1

Date	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHANUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGANESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYBDENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYMIUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)
JUL													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	14	<1	<1	3.8	30	34	45	800	.08	.5	28	48	8

Date	SCANDIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELENIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRONTIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTALUM BOT MAT <63U WS FIELD (UG/G) (34975)	THALLIUM BED MAT D SIEVE <63 U TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITANIUM, SED, BM WS,<63U DRY WGT REC PERCENT (49274)	VANADIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTERBIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
JUL													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	14	.6	.1	72	<1	<1	9	2	.270	110	2	16	200

Date	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	SAMPLER TYPE (CODE) (84164)
JUL		
28...	--	3045
28...	2.3	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

NORTHWEST ALASKA—Continued

674346163373600 MUD LAKE CREEK AT PORT ACCESS ROAD NEAR KIVALINA

Date	Time	Medium code	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	SPECIFIC CONDUCTANCE (US/CM) (00095)	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)	TEMPERATURE WATER (DEG C) (00010)
JUL													
30...	1100	9	1028	80020	325	.23	767	13.6	6.5	7.8	153	163	10.6
30...	1200	H	1028	80020	325	--	--	--	--	--	--	--	--

Date	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNESIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTASSIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	ALKALINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
JUL													
30...	27.5	3.72	.16	1.10	--	--	--	--	82	78	78	101	1.93
30...	--	--	--	--	1.7	1.2	1.0	.720	--	--	--	--	--

Date	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
JUL													
30...	<.10	2.99	1.2	--	95	<.015	.23	.27	.101	E.002	.005	<.007	.013
30...	--	--	--	.15	--	--	--	--	--	--	--	--	--

Date	PHOSPHORUS BOT MAT <63U WS FIELD PERCENT (34935)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, INORG, SED, BM WS,<63U DW, REC (PERCENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PERCENT) (49266)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
JUL													
30...	--	6.5	--	--	--	<20	<.04	<.8	1.1	457	<.08	35.6	1
30...	.073	--	.60	3.3	2.7	--	--	--	--	--	--	--	--

Date	ALUMINUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTIMONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYLLIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHROMIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EUROPIUM BOT MAT <63U WS FIELD (UG/G) (34855)	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)
JUL													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	4.6	1.1	7.2	1600	1.6	<1	3.4	48	78	23	18	1	11

Date	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHANUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGANESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYBDENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYMIUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	SCANDIUM BOT MAT <63U WS FIELD (UG/G) (34945)
JUL													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<1	<1	3.9	22	120	31	1700	.13	<.5	22	40	8	11

Date	SELENIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRONTIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTALUM BOT MAT <63U WS FIELD (UG/G) (34975)	THALLIUM BED MAT D SIEVE <63 U TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITANIUM, SED, BM WS,<63U DRY WGT REC PERCENT (49274)	VANADIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTERBIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
JUL													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	.3	.2	76	<1	<1	7	2	.270	90	2	16	640	2.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

NORTHWEST ALASKA—Continued

673845163455600 DEADMAN CREEK AT PORT ACCESS ROAD NEAR KIVALINA

Date	Time	Medium code	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE-SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS-SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	PHOS-PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER-CENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC PERCENT (49267)
JUL													
30...	1400	H	1028	80020	475	1.3	.740	1.6	.330	.25	.083	.45	3.4

Date	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER-CENT) (49266)	ALUM-INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI-MONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYL-LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO-MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO-PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
JUL													
30...	3.0	5.6	.8	9.4	960	1.9	<1	2.0	41	85	17	18	1

Date	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA-NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA-NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB-DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM-IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)
JUL													
30...	13	<1	<1	3.9	20	64	47	1000	.10	.7	21	49	8

Date	SCAN-DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON-TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA-LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL-LIUM BED MAT D SIEVE <63 U TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITA-NIUM, SED, BM WS,<63U DRY WGT REC PERCENT (49274)	VANA-DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTER-BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
JUL													
30...	13	1.0	.2	100	<1	<1	8	2	.210	98	2	20	420

Date	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
JUL	
30...	2.3

673756163503900 AUFEIS CREEK AT PORT ACCESS ROAD NEAR KIVALINA

Date	Time	Medium code	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	TEMPER-ATURE WATER (DEG C) (00010)
JUL													
28...	1430	9	1028	80020	325	1.2	764	11.4	7.5	7.9	208	216	12.4
29...	0915	H	1028	80020	325	--	--	--	--	--	--	--	--

Date	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE-SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS-SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	ALKA-LINITY WAT.DIS FET LAB (MG/L CACO3) (29801)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
JUL													
28...	34.7	5.45	.23	1.23	--	--	--	--	84	80	80	104	1.37
29...	--	--	--	--	.590	.640	2.0	.380	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

NORTHWEST ALASKA—Continued

673756163503900 AUFEIS CREEK AT PORT ACCESS ROAD NEAR KIVALINA—Continued

Date	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
JUL													
28...	<.10	2.78	26.5	--	126	<.015	E.07	E.07	.034	<.002	E.004	<.007	.005
29...	--	--	--	.14	--	--	--	--	--	--	--	--	--

Date	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER- CENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER- CENT) (49266)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
JUL													
28...	--	1.8	--	--	--	<20	<.04	<.8	.6	<10	<.08	E1.6	<1
29...	.120	--	.13	3.5	3.3	--	--	--	--	--	--	--	--

Date	ALUM- INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI- MONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)
JUL													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	6.6	.9	13	1100	2.4	<1	1.3	49	130	14	29	1	16

Date	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)
JUL													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	<1	<1	3.7	26	50	58	530	.13	.8	25	50	9	15

Date	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL- LIUM BED MAT D SIEVE <63 U TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITA- NIUM, SED, BM WS,<63U DRY WGT REC PERCENT (49274)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
JUL													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	2.2	.2	120	<1	<1	10	3	.220	130	2	20	330	3.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA

613131149551000 -- BIG LAKE SE OF BURSTON ISLAND NEAR WASILLA

Date	Time	Record number	Medium code	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	MOISLAND- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	SAMPLE PURPOSE CODE (71999)	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)
AUG											
15...	1245	00200287	H	1028	80020	90	40	3600	10.00	8010	5030

613150149554900 -- BIG LAKE NW OF BURSTON ISLAND NR WASILLA AK

Date	Time	Record number	Medium code	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SAM- PLING DEPTH (M) (00098)	OXYGEN, DISLAND- SOLVED (MG/L) (00300)
AUG										
15...	1117	00200686	9	17.3	770	1028	1028	132	.50	10.4
15...	1118	00200687	9	17.3	770	1028	1028	132	1.0	10.4
15...	1119	00200688	9	17.3	770	1028	1028	132	3.0	10.4
15...	1120	00200689	9	17.3	770	1028	1028	132	5.0	10.4
15...	1121	00200690	9	13.6	770	1028	1028	142	7.0	12.2
15...	1122	00200691	9	9.7	770	1028	1028	144	9.0	11.2
15...	1123	00200692	9	8.0	770	1028	1028	145	11.0	9.8
15...	1124	00200693	9	6.9	770	1028	1028	146	13.0	8.6
15...	1125	00200694	9	6.1	770	1028	1028	147	15.0	6.6
15...	1126	00200695	9	5.5	770	1028	1028	148	17.0	5.0
15...	1127	00200696	9	5.1	770	1028	1028	148	19.0	2.9
15...	1128	00200697	9	5.0	770	1028	1028	148	21.0	2.2
15...	1129	00200698	9	4.9	770	1028	1028	149	23.0	.9
15...	1130	00200699	9	4.8	770	1028	1028	158	24.0	.2
15...	1131	00200700	9	4.8	770	1028	1028	168	24.5	.2

Date	Time	Record number	Medium code	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270)	CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271)	CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272)	TERPHEN YL D14- SURROGT SED, BM WS,<2MM DW, REC PERCENT (49278)
AUG													
15...	1200	00200273	H	1028	80020	7.30	93	30	4500	3.8	120	120	87
15...	1210	00200274	H	1028	80020	7.30	--	--	--	3.9	120	120	79

Date	BIPHENL 2FLUORO SURROGT SED, BM WS,<2MM DW, REC PERCENT (49279)	BENZENE NITROD5 SURROGT SED, BM WS,<2MM DW, REC PERCENT (49280)	BENZENE HEXA- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49343)	PHTHAL- ATE, DIBUTYL SED, BM WS,<2MM DW, REC (UG/KG) (49381)	PHTHAL ATE, D IOCTYL SED, BM WS,<2MM DW, REC (UG/KG) (49382)	PHTHAL- ATE, D IETHYL SED, BM WS,<2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE,DI- METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49384)	PYRENE, SED, BM WS,<2MM DW, REC (UG/KG) (49387)	PYRENE, 1- METHYL, SED, BM WS,<2MM DW, REC (UG/KG) (49388)	BENZO (A) PYRENE SED, BM WS,<2MM DW, REC (UG/KG) (49389)	INDENO 123-CD PYRENE SED, BM WS,<2MM DW, REC (UG/KG) (49390)	2,2'-BI QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49391)	QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49392)
AUG													
15...	72	58	<420	E180	<420	E28	<420	E78	<420	<420	<420	<420	<420
15...	66	57	<500	E200	<500	E30	<500	<500	<500	<500	<500	<500	<500

Date	PHENAN- THRI- DINE SED, BM WS,<2MM DW, REC (UG/KG) (49393)	ISO- QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49394)	TOLUENE 2,4-DI- NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49396)	BENZO K FLUOR- ANTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49397)	9H-FLU- ORENE, 1METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49398)	9H-FLU- ORENE SED, BM WS,<2MM DW, REC (UG/KG) (49399)	ISOPHOR ONE SED, BM WS,<2MM DW, REC (UG/KG) (49400)	METHANE 2CHLORO ETHOXY SED, BM WS,<2MM DW, REC (UG/KG) (49401)	NAPHTH- ALENE, SED, BM WS,<2MM DW, REC (UG/KG) (49402)	NAPTHAL ENE, 12 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49403)	NAPTHAL ENE, 16 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49404)	NAPTHAL ENE,236 TRIMETH SED, BM WS,<2MM DW, REC (UG/KG) (49405)
AUG													
15...	<420	<420	<420	<420	<420	<420	<420	<420	<420	E97	<420	E110	<420
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	E130	<500

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA—Continued

613150149554900 -- BIG LAKE NW OF BURSTON ISLAND NR WASILLA—Continued

Date	NAPTHAL ENE, 26 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49406)	NAPTHAL ENE, 2- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49407)	BENZO(G HI)PERY LENE SED, BM WS,<2MM DW, REC (UG/KG) (49408)	PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG) (49409)	PHENAN THRENE 1METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49410)	4HCYPEN PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG) (49411)	PHENOL SED, BM WS,<2MM DW, REC (UG/KG) (49413)	3,5- XYLENOL SED, BM WS,<2MM DW, REC (UG/KG) (49421)	M-CRE- SOL, 4- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49422)	PHENOL C8- ALKYL- SED, BM WS,<2MM DW, REC (UG/KG) (49424)	PHTHALA TE,BIS2 ETHHEXL SED, BM WS,<2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL BENZYL- SED, BM WS,<2MM DW, REC (UG/KG) (49427)	ACENAPH THYLENE SED, BM WS,<2MM DW, REC (UG/KG) (49428)
AUG													
15...	580	<420	<420	E35	<420	<420	E180	<420	<420	E220	E210	E320	<420
15...	E420	<500	<500	E37	<500	<500	E220	<500	<500	<500	1900	E320	<500

Date	ACENAPH THENE SED, BM WS,<2MM DW, REC (UG/KG) (49429)	ACRI- DINE SED, BM WS,<2MM DW, REC (UG/KG) (49430)	DPROPYL AMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG) (49431)	DIPHNYL AMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG) (49433)	ANTHRA- CENE SED, BM WS,<2MM DW, REC (UG/KG) (49434)	ANTHRA- CENE,2- METHYL- SED, BM WS,<2MM DW, REC (UG/KG) (49435)	BENZ(A) ANTHRA- CENE SED, BM WS,<2MM DW, REC (UG/KG) (49436)	9,10- ANTHRA- QUINONE SED, BM WS,<2MM DW, REC (UG/KG) (49437)	BENZENE 124TRI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49438)	BENZENE O-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49439)	BENZENE M-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49441)	BENZENE P-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49442)	AZO- BENZENE SED, BM WS,<2MM DW, REC (UG/KG) (49443)
AUG													
15...	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500

Date	BENZENE NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49444)	BENZENE PNTCHLR NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49446)	CARBA- ZOLE SED, BM WS,<2MM DW, REC (UG/KG) (49449)	CHRY- SENE SED, BM WS,<2MM DW, REC (UG/KG) (49450)	P- CRESOL SED, BM WS,<2MM DW, REC (UG/KG) (49451)	THIOPH ENE,DI- BENZO- SED, BM WS,<2MM DW, REC (UG/KG) (49452)	4-BROMO PHNPHNL ETHER SED, BM WS,<2MM DW, REC (UG/KG) (49454)	4CHLORO PHNPHN LETHER SED, BM WS,<2MM DW, REC (UG/KG) (49455)	BIS2CHL ETHYL ETHER SED, BM WS,<2MM DW, REC (UG/KG) (49456)	BENZOB FLUOR- ANTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49458)	PENTA- CHLORO- ANISOLE SED, BM WS,<2MM DW, REC (UG/KG) (49460)	DIBENZ (AH),AN THRACEN SED, BM WS,<2MM DW, REC (UG/KG) (49461)	FLUOR- ANTHENE BED MAT WS <2MM DRY WGT REC (UG/KG) (49466)
AUG													
15...	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	E69
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500

Date	PHENOL, 2CHLORO BED MAT WS <2MM DRY WGT REC (UG/KG) (49467)	BENZOCI NNOLINE BED MAT WS <2MM DRY WGT REC (UG/KG) (49468)	NAPTHAL ENE, 2- ETHYL- SED BM WS <2MM DW REC (UG/KG) (49948)	SAMPLE PURPOSE CODE (71999)	SAM- PLING METHOD, CODES (82398)	DEPTH TO BOT. FROM SURFACE AT SAMP LOC. METERS (82903)	SAMPLER TYPE (CODE) (84164)	SAMPLE WEIGHT SCHED- ULE 2502 (GRAMS) (99854)
AUG								
15...	<420	<420	<420	10.00	5010	25.0	5030	3.1
15...	<500	<500	<500	10.00	5010	25.0	5030	2.5

613206149505800 -- BIG LAKE E OF HEARN ISLAND NEAR WASILLA

Date	Time	Record number	Medium code	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	SAMPLE PURPOSE CODE (71999)	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)
AUG											
15...	1410	00200288	H	1028	80020	93	72	850	10.00	8010	5030

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA—Continued

613215149522600 -- BIG LAKE S OF LONG ISLAND NEAR WASILLA

Date	Time	Record number	Medium code	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SAM- PLING DEPTH (M) (00098)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG										
15...	1320	00200701	9	17.4	770	1028	1028	130	.50	10.8
15...	1321	00200702	9	17.4	770	1028	1028	129	1.0	10.4
15...	1322	00200703	9	17.4	770	1028	1028	130	2.0	10.5
15...	1323	00200705	9	17.4	770	1028	1028	129	3.0	10.2
15...	1324	00200704	9	17.4	770	1028	1028	129	4.0	10.3
15...	1325	00200706	9	17.4	770	1028	1028	129	5.0	10.6
15...	1326	00200707	9	16.7	770	1028	1028	131	6.0	10.3
15...	1327	00200708	9	13.6	770	1028	1028	142	7.0	10.7
15...	1328	00200709	9	11.1	770	1028	1028	145	8.0	10.1
15...	1329	00200710	9	9.8	770	1028	1028	147	9.0	9.3
15...	1330	00200711	9	8.6	770	1028	1028	150	10.0	6.9
15...	1331	00200712	9	7.4	770	1028	1028	154	11.0	4.2
15...	1332	00200713	9	6.3	770	1028	1028	161	12.0	.8
15...	1333	00200714	9	5.6	770	1028	1028	165	13.0	.3
15...	1334	00200715	9	5.3	770	1028	1028	171	14.0	.2
15...	1335	00200716	9	5.1	770	1028	1028	181	15.0	.2

Date	Time	Record number	Medium code	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270)	CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271)	CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272)	TERPHEN YL D14- SURROGT SED, BM WS,<2MM DW, REC PERCENT (49278)
AUG													
15...	1345	00200276	H	1028	80020	6.10	92	98	6600	1.2	130	130	87
15...	1355	00200275	H	1028	80020	6.10	--	--	--	1.2	110	120	84

Date	BIPHENL 2FLUORO SURROGT SED, BM WS,<2MM DW, REC PERCENT (49279)	BENZENE NITROD5 SURROGT SED, BM WS,<2MM DW, REC PERCENT (49280)	BENZENE HEXA- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49343)	PHTHAL- ATE, DIBUTYL SED, BM WS,<2MM DW, REC (UG/KG) (49381)	PHTHAL ATE, D IOCTYL SED, BM WS,<2MM DW, REC (UG/KG) (49382)	PHTHAL- ATE, D IETHYL SED, BM WS,<2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE,DI- METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49384)	PYRENE, SED, BM WS,<2MM DW, REC (UG/KG) (49387)	PYRENE, 1- METHYL, SED, BM WS,<2MM DW, REC (UG/KG) (49388)	BENZO (A) PYRENE SED, BM WS,<2MM DW, REC (UG/KG) (49389)	INDENO 123-CD PYRENE SED, BM WS,<2MM DW, REC (UG/KG) (49390)	2,2'-BI QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49391)	QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49392)
AUG													
15...	74	62	<500	E180	<500	<500	<500	E98	<500	<500	<500	<500	<500
15...	73	58	<500	E220	<500	E31	<500	<500	<500	<500	<500	<500	<500

Date	PHENAN- THRI- DINE SED, BM WS,<2MM DW, REC (UG/KG) (49393)	ISO- QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49394)	TOLUENE 2,4-DI- NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49396)	BENZO K FLUOR- ANTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49397)	9H-FLU- ORENE, 1METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49398)	9H-FLU- ORENE SED, BM WS,<2MM DW, REC (UG/KG) (49399)	ISOPHOR ONE SED, BM WS,<2MM DW, REC (UG/KG) (49400)	METHANE 2CHLORO ETHOXY SED, BM WS,<2MM DW, REC (UG/KG) (49401)	NAPHTH- ALENE, SED, BM WS,<2MM DW, REC (UG/KG) (49402)	NAPTHAL ENE, 12 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49403)	NAPTHAL ENE, 16 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49404)	NAPTHAL ENE,236 TRIMETH SED, BM WS,<2MM DW, REC (UG/KG) (49405)
AUG													
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	E150	<500
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	E160	<500

Date	NAPTHAL ENE, 26 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49406)	NAPTHAL ENE, 2- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49407)	BENZO(G HI)PERY LENE SED, BM WS,<2MM DW, REC (UG/KG) (49408)	PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG) (49409)	PHENAN THRENE 1METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49410)	4HCYPEN PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG) (49411)	PHENOL SED, BM WS,<2MM DW, REC (UG/KG) (49413)	3,5- XYLENOL SED, BM WS,<2MM DW, REC (UG/KG) (49421)	M-CRE- SOL, 4- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49422)	PHENOL C8- ALKYL- SED, BM WS,<2MM DW, REC (UG/KG) (49424)	PHTHALA TE,BIS2 ETHHEXL SED, BM WS,<2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL BENZYL- SED, BM WS,<2MM DW, REC (UG/KG) (49427)	ACENAPH THYLENE SED, BM WS,<2MM DW, REC (UG/KG) (49428)
AUG													
15...	700	<500	<500	E38	<500	<500	E220	<500	<500	<500	E300	E370	<500
15...	720	<500	<500	<500	<500	<500	E230	<500	<500	E260	E250	E370	<500

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SOUTH-CENTRAL ALASKA—Continued

613215149522600 -- BIG LAKE S OF LONG ISLAND NEAR WASILLA—Continued

Date	ACENAPH THENE SED, BM WS,<2MM DW, REC (UG/KG) (49429)	ACRI- DINE SED, BM WS,<2MM DW, REC (UG/KG) (49430)	DPROPYL AMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG) (49431)	DIPHNYL AMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG) (49433)	ANTHRA- CENE SED, BM WS,<2MM DW, REC (UG/KG) (49434)	ANTHRA- CENE,2- METHYL- SED, BM WS,<2MM DW, REC (UG/KG) (49435)	BENZ(A) ANTHRA- CENE SED, BM WS,<2MM DW, REC (UG/KG) (49436)	9,10- ANTHRA- QUINONE SED, BM WS,<2MM DW, REC (UG/KG) (49437)	BENZENE 124TRI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49438)	BENZENE O-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49439)	BENZENE M-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49441)	BENZENE P-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49442)	AZO- BENZENE SED, BM WS,<2MM DW, REC (UG/KG) (49443)
AUG													
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500

Date	BENZENE NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49444)	BENZENE PNTCHLR NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49446)	CARBA- ZOLE SED, BM WS,<2MM DW, REC (UG/KG) (49449)	CHRY- SENE SED, BM WS,<2MM DW, REC (UG/KG) (49450)	P- CRESOL SED, BM WS,<2MM DW, REC (UG/KG) (49451)	THIOPH ENE,DI- BENZO- SED, BM WS,<2MM DW, REC (UG/KG) (49452)	4-BROMO PHNPHNL ETHER SED, BM WS,<2MM DW, REC (UG/KG) (49454)	4CHLORO PHNPHN LETHER SED, BM WS,<2MM DW, REC (UG/KG) (49455)	BIS2CHL ETHYL ETHER SED, BM WS,<2MM DW, REC (UG/KG) (49456)	BENZOB FLUOR- ANTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49458)	PENTA- CHLORO- ANISOLE SED, BM WS,<2MM DW, REC (UG/KG) (49460)	DIBENZ (AH),AN THRACEN SED, BM WS,<2MM DW, REC (UG/KG) (49461)	FLUOR- ANTHENE BED MAT WS <2MM DRY WGT REC (UG/KG) (49466)
AUG													
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	E83
15...	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500

Date	PHENOL, 2CHLORO BED MAT WS <2MM DRY WGT REC (UG/KG) (49467)	BENZOCI NNOLINE BED MAT WS <2MM DRY WGT REC (UG/KG) (49468)	NAPTHAL ENE, 2- ETHYL- SED BM WS <2MM DW REC (UG/KG) (49948)	SAMPLE PURPOSE CODE (71999)	SAM- PLING METHOD, CODES (82398)	DEPTH TO BOT. FROM SURFACE AT SAMP LOC. METERS (82903)	SAMPLER TYPE (CODE) (84164)	SAMPLE WEIGHT SCHED- ULE 2502 (GRAMS) (99854)
AUG								
15...	<500	<500	<500	10.00	5010	15.8	5030	2.7
15...	<500	<500	<500	10.00	5010	15.8	5030	2.5

613309149513500 -- BIG LAKE NE OF PETROVICH ISLAND NEAR WASILLA

Date	Time	Record number	Medium code	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	SAMPLE PURPOSE CODE (71999)	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)
AUG											
15...	1430	00200289	H	1028	80020	95	170	1700	10.00	8010	5030

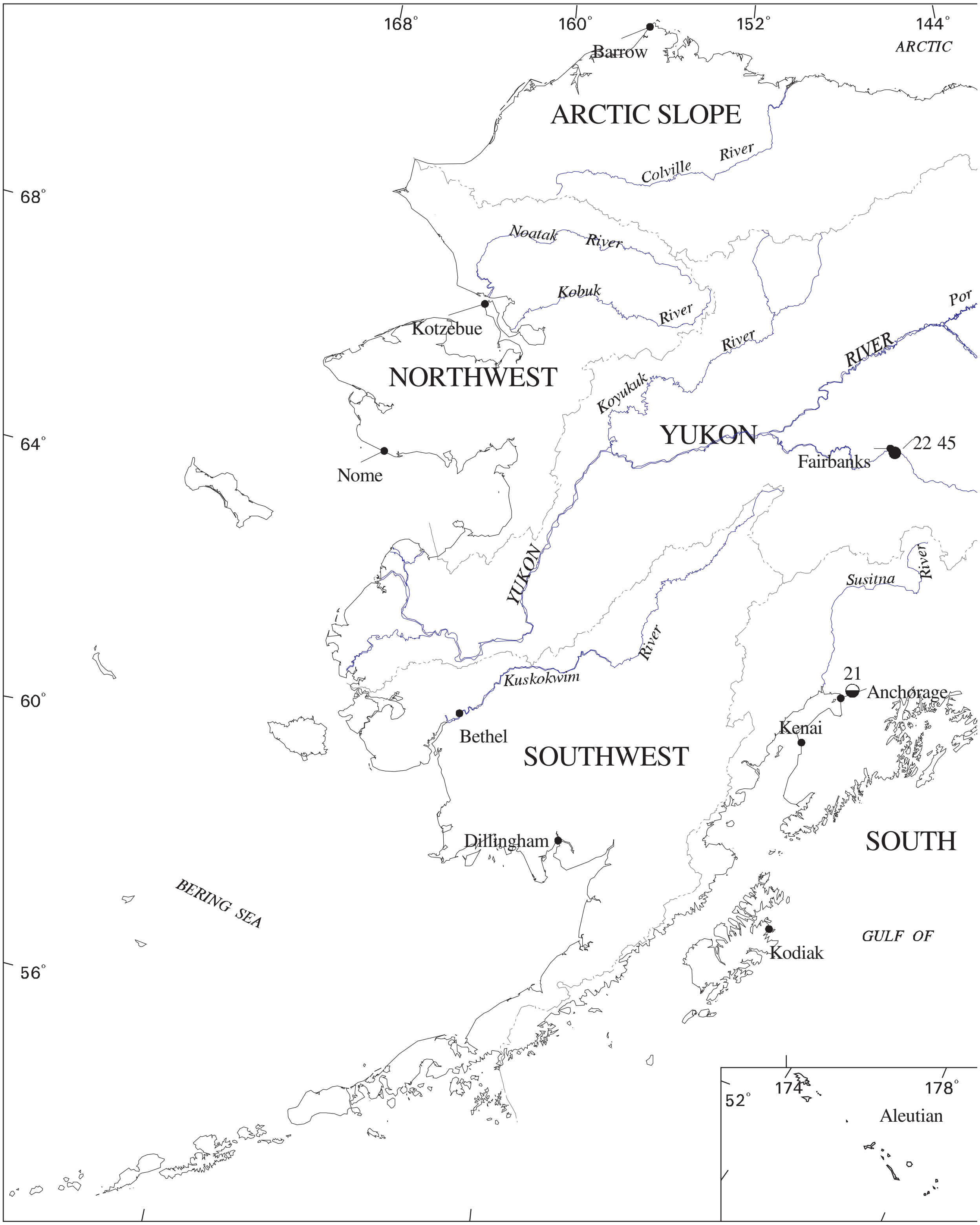
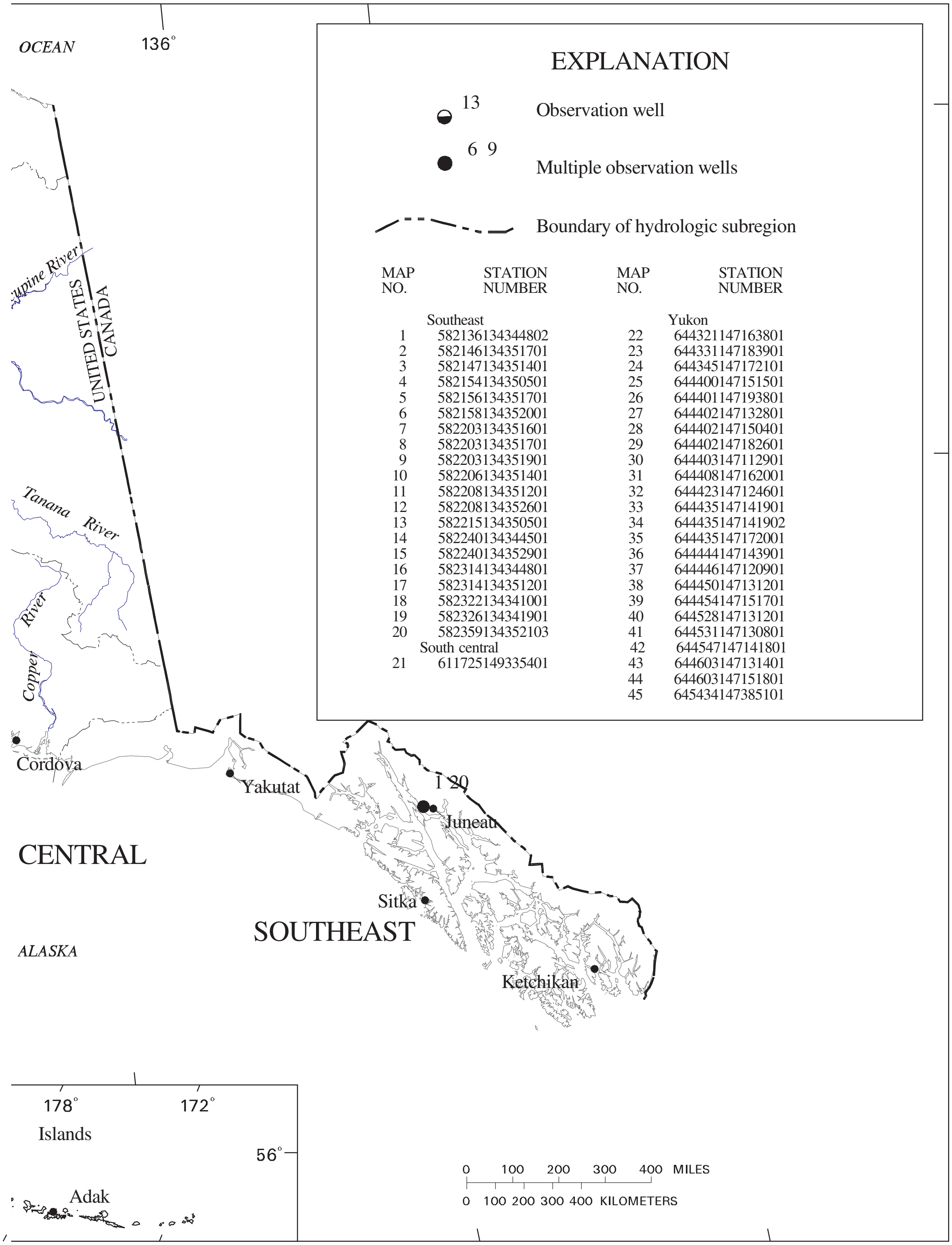
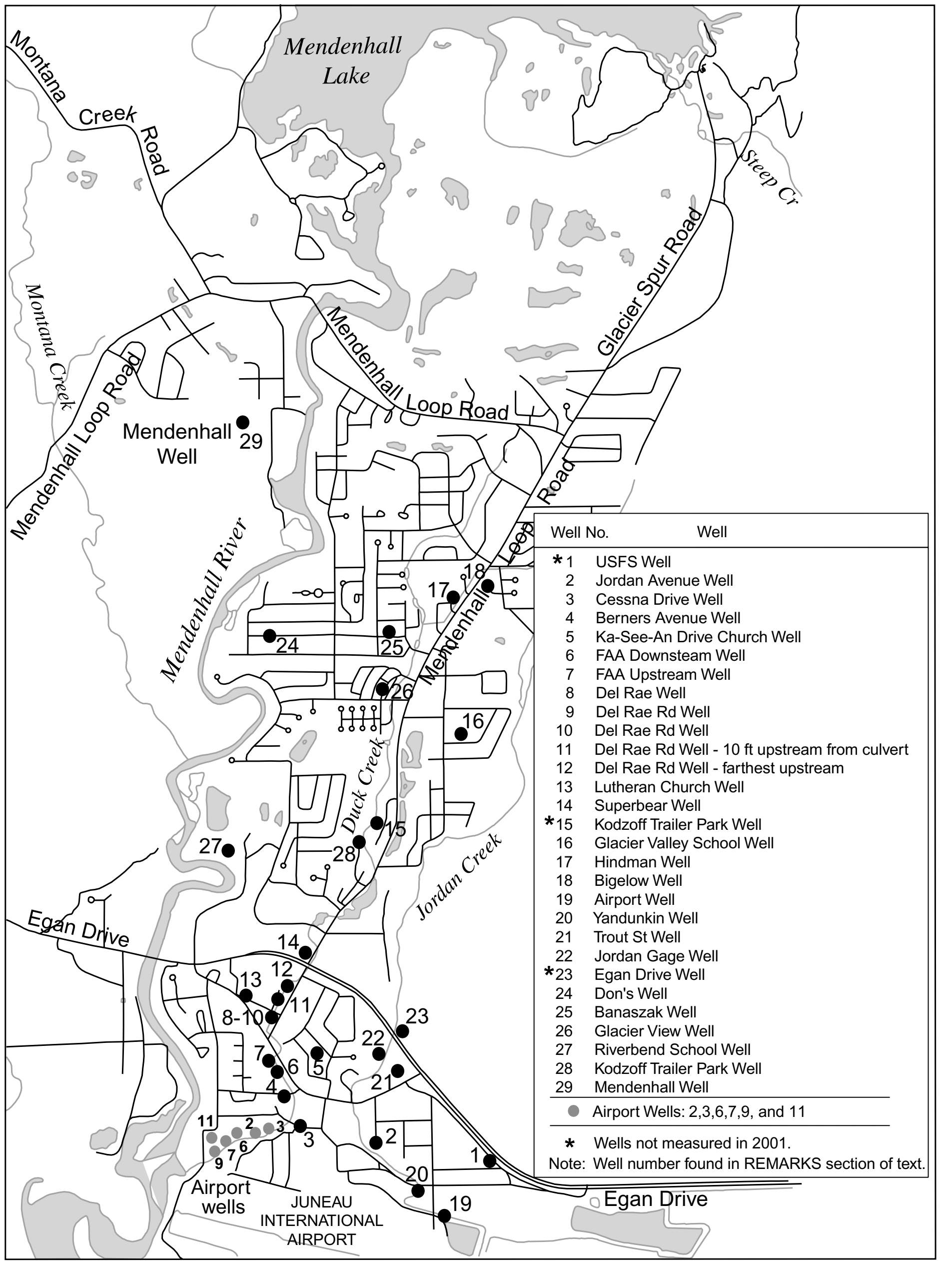


Figure 3. Locations of ground-water wells



MAP NO.	STATION NUMBER	MAP NO.	STATION NUMBER
	Southeast		Yukon
1	582136134344802	22	644321147163801
2	582146134351701	23	644331147183901
3	582147134351401	24	644345147172101
4	582154134350501	25	644400147151501
5	582156134351701	26	644401147193801
6	582158134352001	27	644402147132801
7	582203134351601	28	644402147150401
8	582203134351701	29	644402147182601
9	582203134351901	30	644403147112901
10	582206134351401	31	644408147162001
11	582208134351201	32	644423147124601
12	582208134352601	33	644435147141901
13	582215134350501	34	644435147141902
14	582240134344501	35	644435147172001
15	582240134352901	36	644444147143901
16	582314134344801	37	644446147120901
17	582314134351201	38	644450147131201
18	582322134341001	39	644454147151701
19	582326134341901	40	644528147131201
20	582359134352103	41	644531147130801
	South central	42	644547147141801
21	611725149335401	43	644603147131401
		44	644603147151801
		45	645434147385101



Location of Mendenhall Valley wells.

SOUTHEAST ALASKA

JUNEAU

582136134344802. Local number, CD04006631ACBC1015.

LOCATION.--Lat 58°21′36″, Long 134°34′48″, in NW1/4 SW1/4 NE1/4 sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located about 20 ft southeast of a trail running between the intersection of Jordan Avenue and Teal Street, about 50 ft south of Teal Street, and about 20 ft northeast of a footbridge over Jordan Creek, Juneau. Owner: City and Borough of Juneau.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.25-in. steel casing, depth 8 ft, screen opening from 6 to 8 ft using a sandpoint.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel May 1997 to current year.
DATUM.--Elevation of land-surface datum is 19.84 ft above sea level (determined by levels survey). Measuring point: Top of casing, 0.6 ft above land-surface datum.
REMARKS.--Well drilled May 1997 by USGS, designated as Duck Creek #2 (Jordan Avenue Well). Area near well is intermittently flooded. Water level often above top of casing.
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.1 ft above land-surface datum, July 13, 1997; lowest, 3.28 ft below land-surface datum, March 12, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL
Mar 22	3.08

582146134351701. Local number, CD04006631BBDD1016.

LOCATION.--Lat 58°21′46″, Long 134°35′17″, in SE1/4 NW1/4 NW1/4 sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located near the left bank of Duck Creek, about 10 ft northwest of the intersection of Cessna Drive and Alex Holden Way, Juneau. Owner: City and Borough of Juneau.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 12 ft, screen opening from 10 to 12 ft.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel June 1997 to current year.
DATUM.--Elevation of land-surface datum is 25.35 ft above sea level (determined by levels survey). Measuring point: Top of casing 0.88 ft above land-surface datum.
REMARKS.--Well drilled May 1997 by USGS, designated as Duck Creek #3 (Cessna Drive Well).
PERIOD OF RECORD.--June 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.9 ft below land-surface datum, July 13, 1997; lowest, 10.06 ft below land-surface datum, February 21, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	8.12	Jun 13	8.81
Mar 22	9.80	Jul 02	8.32
Jun 06	9.32		

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582147134351401. Local number, CD04006631BBDB1017.

LOCATION.--Lat 58°21′47″, Long 134°35′14″, in SE$^1/_4$ NW$^1/_4$ NW$^1/_4$ sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located near the right bank of Duck Creek, about 70 ft downstream of the Berners Avenue crossing, Juneau. Owner: City and Borough of Juneau.

AQUIFER.--Sand and gravel of the Quaternary System.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 8.8 ft, screen opening 6.8 to 8.8 ft.

INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel June 1997 to current year.

DATUM.--Elevation of land-surface datum is 19.52 ft above sea level (determined by levels survey). Measuring point: Top of casing 1.9 ft above land-surface datum.

REMARKS.--Well drilled 1997 by USGS, designated as Duck Creek #4 (Berners Avenue Well). Water from well was sampled for water quality on September 5, 1997, January 29, 1998, and September 3, 1998.

PERIOD OF RECORD.--June 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.20 ft below land-surface datum, September 3, 1998; lowest, 4.12 ft below land-surface datum, March 21, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	1.65	Jun 25	2.89
Mar 22	3.81	Jun 26	2.86
Jun 06	3.26	Jul 02	2.71
Jun 12	2.66	Aug 21	1.44
Jun 13	2.59		

582154134350501. Local number, CD04006630CDCB1027.

LOCATION.--Lat 58°21′54″, Long 134°35′05″, in SW$^1/_4$ SE$^1/_4$ SW$^1/_4$ sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located 15 ft east of a tributary to Duck Creek and about 1,200 ft northwest of Jordan Creek, 90 ft southwest of the First Church of God on Ka-See-An Drive, Juneau. Owner: First Church of God.

AQUIFER.--Sand and gravel of the Quaternary System.

WELL CHARACTERISTICS.--Diameter 1.25-in steel casing., depth 17.5 ft, screen opening from 15.5 to 17.5 ft using a sandpoint.

INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, or U.S. Forest Service personnel June 1997 to current year.

DATUM.--Elevation of land-surface datum is 26.30 ft above sea level (determined by levels survey). Measuring point: Top of casing 2.05 ft above land-surface datum.

REMARKS.--Well drilled June 1997 by USGS, designated as Duck Creek #5 (Ka-See-An Drive Church Well).

PERIOD OF RECORD.--June 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.41 ft below land-surface datum, October 23, 1999; lowest, 9.62 ft below land-surface datum, March 12, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	6.20	Mar 22	9.44

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582156134351701. Local number, CD04006631BBBA1018.

LOCATION.--Lat 58°21′56″, Long 134°35′17″, in NW1/4 NW1/4 NW1/4 sec. 31, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located in Duck Creek channel about 90 ft downstream from driveway crossing to Federal Aviation Administration building, about 50 ft southwest of Old Glacier Highway, Juneau. Owner: Federal Aviation Administration.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.25-in. steel casing, depth 11 ft, screen opening from 9 to 11 ft using sandpoint.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel May 1997 to curretn year.
DATUM.--Elevation of land-surface datum is 18.48 ft above sea level (determined by levels survey). Measuring point: Top of casing 1.86 ft above land-surface datum.
REMARKS.--Well drilled May 1997 by USGS, designated as Duck Creek #6 (FAA Downstream Well). Well is in stream channel and is intermittently flooded. Water level often above top of casing.
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.7 ft above land surface datum,July 13 and August 14, 1997; lowest, 3.62 ft below land-surface datum, March 13, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Mar 22	-1.51	Jul 02	1.63
Jun 13	-0.12		

Minus sign indicates water level above land-surface datum.

582158134352001. Local number, CD04006630CCCD2017.

LOCATION.--Lat 58°21′58″, Long 134°35′20″, in SW1/4 SW1/4 SW1/4 sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well is located in Duck Creek channel, 20 ft upstream from driveway crossing to Federal Aviation Administration building, about 50 ft southwest of Old Glacier Highway, Juneau. Owner: Federal Aviation Administration.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.25-in. steel casing, depth 12 ft, screen opening from 10 to 12 ft using sandpoint.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel May 1997 to current year.
DATUM.--Elevation of land-surface datum is 19.62 ft above sea level (determined by levels survey). Measuring point: Top of casing 1.2 ft above land-surface datum.
REMARKS.--Well drilled May 8, 1997 by USGS, designated as Duck Creek #7 (FAA Upstream Well). Well is in stream channel and is intermittently flooded. Water level often above top of casing.
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.7 ft above land surface datum, July 13 and August 14, 1997; lowest, 3.63 ft below land-surface datum, July 2, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	X	Jul 02	1.98
Jun 13	-0.74		

X stream stage was higher than top of well casing
Minus sign indicates water level was above land-surface datum.

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582203134351601. Local number, CD04006630CCDB1028.

LOCATION.--Lat 58°22′03″, Long 134°35′16″, in SE¼ SW¼SW¼ sec. 30, T. 40 S., R. 66 E. (Juneau B-2 quad), Hydrologic Unit 19010301. Well located on left bank of Duck Creek about 55 ft downstream from Del Rae Road crossing, 25 ft from Mendenhall Loop Road, and 0.25 mi. south of the intersection of Mendenhall Loop Road and Egan Drive, Juneau. Owner: City and Borough of Juneau.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.5-in. steel casing, depth 14 ft, screen opening from 12 to 14 ft.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel May 1997 to current year.
DATUM.--Elevation of land-surface datum is 23.10 ft above sea level (determined by levels survey). Measuring point: Top of casing 1.56 ft above land-surface datum.
REMARKS.--Well drilled May 6, 1997 by USGS, designated as Duck Creek #10 (Del Rae Road Well). Well is in stream channel and is intermittently flooded. Water level often above top of casing.
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.22 ft below land surface datum, December 30, 1999; lowest, 7.59 ft below land-surface datum, March 12, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	1.68	Jun 13	4.19
Mar 21	7.14	Jul 02	4.41
Jun 06	3.27		

582203134351701. Local number, CD04006630CCBD3015.

LOCATION.--Lat 58°22′03″, Long 134°35′17″, in NW¼ SW¼ SW¼ sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located on left bank of Duck Creek, 30 ft downstream from Del Rae Road crossing, and 0.25 mi. south of the intersection of Mendenhall Loop Road and Egan Drive, Juneau. Owner: City and Borough of Juneau.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.5-in. PVC casing, depth 11 ft, perforated from 9 to 11 ft.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel May 1997 to current year.
DATUM.--Elevation of land-surface datum is 22.14 ft above sea level (determined by levels survey). Measuring point: Top of casing 1.30ft above land-surface datum.
REMARKS.--Well drilled May 6, 1997 by USGS, designated as Duck Creek #9 (Del Rae Road Well). Well is near stream channel and is intermittently flooded. Water level often above top of casing.
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.50 ft above land surface datum, August 14, 1997; lowest, 8.39 ft below land-surface datum, May 6, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	0.45	Jun 13	1.75
Mar 21	6.39	Jul 02	3.36
Jun 06	1.86		

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582203134351901. Local number, CD04006630CCBD2015.

LOCATION.--Lat 58°22′03″, Long 134°35′19″, in NW1/4 SW1/4 SW1/4 sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located on right bank of Duck Creek, 75 ft downstream from Del Rae Road crossing and 0.25 mi. south of the intersection of Mendenhall Loop Road and Egan Drive, Juneau. Owner: City and Borough of Juneau.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 2 in. steel casing, depth 15 ft, screen opening from 12 to 15 ft using sandpoint.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel May 1997 to current year.
DATUM.--Elevation of land-surface datum is 33 ft above sea level (determined from topographic map). Measuring point: Top of casing 1.66 ft above land-surface datum.
REMARKS.--Well drilled May 6, 1997 by USGS, designated as Duck Creek #8 (Del Rae Well). Well is near stream channel and is intermittently flooded. Water level often above top of casing.
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.15 ft above land surface datum, October 11, 2001, lowest, 9.09 ft below land-surface datum, March 21, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL
Oct 11	X
Mar 21	8.47
Jun 06	4.56
Jun 13	2.81
Jul 02	5.81

X surface-water affected, stream stage higher than top of well casing

582206134351401. Local number, CD04006630CCAC1029.

LOCATION.--Lat 58°22′06″, Long 134°35′14″, in NE1/4 SW1/4 SW1/4 sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located in Duck Creek stream channel, 12 ft upstream from Del Rae Road crossing, 900 ft southwest of intersection of Mendenhall Loop Road and Egan Drive, Juneau. Owner: City and Borough of Juneau.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.5-in PVC casing., depth 12 ft, slotted from 10 to 12 ft.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast and US Forest Service personnel May 1997 to current year.
DATUM.--Elevation of land-surface datum is 21.25 ft above sea level (determined by levels survey). Measuring point: Top of casing 1.8 ft above land-surface datum.
REMARKS.--Well drilled May 7, 1997 by USGS, designated as Duck Creek #11 (Del Rae Road Well, 10 ft upstream from culvert). Well is in stream channel and is intermittently flooded. Water level often above top of casing. Unknown debris placed inside well casing at about 3.6 ft below land surface sometime prior to March 12, 1998. Water levels cannot be determined below the obstruction, but water levels above the obstruction appear to representative of aquifer conditions.
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.4 ft above land-surface datum, July 13, 1997; lowest, 5.35 ft below land-surface datum, May 15, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	-0.66	Jun 13	0.03
Mar 21	O	Jul 02	0.89
Jun 06	0.00		

Minus sign indicates water level above land-surface datum.
O Obstruction at about 2.4 ft below land surface datum.

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582208134351201. Local number, CD04006630CCAB1030.

LOCATION.--Lat 58°22′08″, Long 134°35′12″, in NE$^1/_4$ SW$^1/_4$ SW$^1/_4$ sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located mid-channel of Duck Creek, about 130 ft upstream from Del Rae Road crossing, and 700 ft southwest of the intersection of Mendenhall Loop Road and Egan Drive, Juneau. Owner: City and Borough of Juneau.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.5-in. PVC casing, depth 11 ft, slotted from 7 to 10 ft.
INSTRUMENTATION.-- Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel May 1997 to current year.
DATUM.--Elevation of land-surface datum is 21.22 ft above sea level (determined by levels survey). Measuring point: Top of casing 2.14 ft above land-surface datum.
REMARKS.--Well drilled May 7, 1997 by USGS, designated as Duck Creek #12 (Del Rae Road Well, farthest upstream). Well is in stream channel and is intermittently flooded. Water level often above top of casing.
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.79 ft above land-surface datum, October 11, 2001; lowest, 5.46 ft below land-surface datum, March 21, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	-0.79	Jun 06	0.19
Mar 21	5.04		

Minus sign indicates water level above land-surface datum.

582208134352601. Local number, CD04006630CCBB1031.

LOCATION.--Lat 58°22′08″, Long 134°35′26″, in NW$^1/_4$ SW$^1/_4$ SW$^1/_4$ sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located near a church parking lot, 55 ft northeast of Del Rae Road, and 105 ft southeast of the Lutheran Church, Juneau. Owner: Lutheran Church.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.25-in. steel casing, depth 15 ft, screen opening from 13 to 15 ft using sandpoint.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel June 1997 to current year.
DATUM.--Elevation of land-surface datum is 26.74 ft above sea level (determined by levels survey). Measuring point: Top of steel coupling at top of casing 2.8 ft above land-surface datum.
REMARKS.--Well drilled June 1997 by USGS, designated as Duck Creek #13 (Lutheran Church Well). Well casing filled with sediment to about 12.2 ft.
PERIOD OF RECORD.--June 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.58 ft below land-surface datum, October 23, 1999; lowest, dry, March 21 and April 8, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	9.14	Jun 13	9.05
Mar 21	12.13	Jul 02	9.56

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582215134350501. Local number, CD04006630CBAD1032.

LOCATION.--Lat 58°22′15″, Long 134°35′05″, in NE1/4 NW1/4 SW1/4 sec. 30, T. 40 S., R. 66 E. (Juneau B-2 SW quad), Hydrologic Unit 19010301. Well located near right bank of Duck Creek, 20 ft upstream from a footbridge and 225 ft upstream from the intersection of Egan Drive and Mendenhall Loop Road, Juneau. Owner: City and Borough of Juneau.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.25-in. steel casing, depth 12 ft, screen opening from 10 to 12 ft using sandpoint.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel May 1997 to current year.
DATUM.--Elevation of land-surface datum is 25.04 ft above sea level (determined by levels survey). Measuring point: Top of casing 0.70 ft above land-surface datum.
REMARKS.--Well drilled May 21, 1997 by USGS, designated as Duck Creek #14 (Superbear Well).
PERIOD OF RECORD.--May 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 1.17 ft below land-surface datum, October 9, 1999; lowest, 3.80 ft below land-surface datum, March 21, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	1.69	Jun 13	2.10
Mar 20	1.20	Jul 02	2.26
Jun 06	2.24		

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582240134344501. Local number, CD04006630BADA2033.

LOCATION.--Lat 58°22′40″, Long 134°34′45″, in SE$\frac{1}{4}$ NE$\frac{1}{4}$ NW$\frac{1}{4}$ sec. 30, T. 40 S., R. 66 E. (Juneau B-2 NW quad) Hydrologic Unit 19010301. Well located about 270 ft up a trail from the northern end of the road through Kodzoff #1 trailer Park, Juneau. Owner: Goldbelt Corporation
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 2.0-in. steel casing, depth 18.5 ft. Two pipe wrenches are needed to open well.
INSTRUMENTATION.-- Intermittent measurements with chalked steel tape by USGS personnel February 2001 to October 2002; submersible pressure transducer/electric data logger from February 2001 to current year.
DATUM.--Elevation of land-surface datum is 40.57 ft above sea level (determined by levels survey). Measuring point: Top of casing 1.70 ft above land-surface datum.
REMARKS.--Well drilled October 27, 2000, designated as Kodzoff Trailer Park Well.
PERIOD OF RECORD.--February 2001 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.91ft below land-surface-datum, August 29-30, 2002; lowest, 12.05 ft below land-surface-datum, May 8-10, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 7.91 ft below land-surface datum, August 29-30; lowest, 12.05 ft below land-surface datum, May 8-10.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.08	9.14	10.18	10.29	10.72	10.02	11.09	11.84	10.67	9.84	9.42	8.00
2	8.99	9.10	10.29	10.32	10.73	9.54	11.21	11.84	10.46	9.59	9.49	8.06
3	9.00	9.01	10.42	10.37	10.76	9.42	11.28	11.87	10.42	9.44	9.55	8.25
4	9.07	9.04	10.50	10.47	10.81	9.45	11.37	11.90	10.19	9.44	9.64	8.42
5	9.14	9.16	10.58	10.55	10.85	9.55	11.42	11.92	9.81	9.44	9.72	8.55
6	9.17	9.27	10.63	10.46	10.88	9.66	11.48	11.95	9.78	9.45	9.83	8.65
7	9.17	9.37	10.32	10.43	10.92	9.77	11.54	11.97	9.78	9.48	9.32	8.51
8	9.20	9.46	9.92	10.31	10.99	9.87	11.59	11.99	9.80	9.53	8.93	8.51
9	9.10	9.17	9.87	10.22	11.07	9.97	11.64	12.03	9.75	9.59	8.70	8.56
10	9.10	9.17	9.86	10.15	10.54	10.08	11.67	11.92	9.62	9.58	8.67	8.61
11	9.07	9.22	9.89	10.11	10.26	10.14	11.70	11.84	9.61	9.57	8.69	8.61
12	9.04	9.29	9.72	10.12	9.73	10.24	11.72	11.73	9.60	9.56	8.16	8.62
13	9.09	9.35	9.72	10.17	9.71	10.36	11.73	11.54	9.63	9.57	8.12	8.72
14	9.14	9.42	9.77	10.16	9.55	10.48	11.75	11.31	9.65	9.53	8.12	8.80
15	9.13	9.42	9.88	10.11	9.19	10.61	11.77	11.20	9.67	9.52	8.26	8.87
16	8.91	9.48	10.01	10.04	9.00	10.75	11.80	11.16	9.68	9.53	8.46	8.87
17	8.69	9.49	10.26	10.04	9.02	10.86	11.83	11.17	9.70	9.57	8.63	8.85
18	8.62	9.52	10.41	9.97	9.15	10.96	11.87	11.19	9.73	9.57	8.76	8.77
19	8.36	9.55	10.54	9.90	9.30	11.06	11.90	11.20	9.79	9.58	8.88	8.53
20	8.41	9.60	10.69	9.89	9.48	11.13	11.91	11.20	9.84	9.64	8.93	8.49
21	8.38	9.68	10.79	9.94	9.62	11.21	11.87	11.17	9.86	9.57	8.64	8.39
22	8.39	9.74	10.88	10.02	9.74	11.27	11.87	11.12	9.92	9.50	8.58	8.44
23	8.56	9.70	10.44	10.07	9.85	11.32	11.88	11.03	10.00	9.47	8.38	8.56
24	8.73	9.75	9.89	10.11	9.94	11.36	11.88	10.95	10.08	9.28	8.42	8.61
25	8.84	9.81	9.85	10.20	10.02	11.35	11.87	10.90	9.85	9.22	8.41	8.65
26	8.92	9.89	9.95	10.29	10.08	11.21	11.85	10.86	9.71	9.17	8.42	8.71
27	9.06	9.95	10.07	10.43	10.08	11.07	11.83	10.83	9.66	9.14	8.41	8.80
28	9.14	10.00	10.14	10.57	10.08	11.04	11.83	10.75	9.66	9.09	7.99	8.86
29	8.97	10.05	10.18	10.67	---	11.01	11.84	10.68	9.69	9.07	7.91	8.89
30	8.97	10.11	10.21	10.73	---	10.98	11.84	10.66	9.80	9.22	7.91	9.03
31	9.04	---	10.24	10.74	---	10.99	---	10.67	---	9.34	7.96	---

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582240134352901. Local number, CD04006630BBCB1036.

LOCATION.--Lat 58°22′40", Long 134°35′29", in SW$\frac{1}{4}$ NW$\frac{1}{4}$ NW$\frac{1}{4}$ sec. 30, T. 40 S., R. 66 E. (Juneau B-2 NW quad), Hydrologic Unit 19010301. Well located at northeast edge of baseball field at Riverbend School on Riverside Drive, Juneau. Owner: City and Borough of Juneau.
AQUIFRER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.-- Diameter 2.0-in. PVC casing, depth 15.9 ft, slotted from 5 to 15 ft.
INSTRUMENTATION.-- Intermittent measurements with chalked steel tape by USGS personnel April 2001 to October 2002; submersible pressure transducer/electric data logger May 2001 to March 22, 2002 and August 22, 2002 to current year.
DATUM.-- Elevation of land-surface datum is 31.95 ft above sea level (determined by survey grade GPS). Measuring point: Top of casing 0.20 ft below land-surface datum April 2001 to July 24, 2002; then 0.73 ft. above land-surface datum to current year.
REMARKS.-- Well drilled December 15, 1998 by Hart Crowser, Inc., designated as Riverbend School well.
PERIOD OF DAILY RECORD.-- April 2001 to March 22, 2002; August 22, 2002 to current year.
EXTREMES FOR PERIOD OF RECORD.-- Highest water level recorded, 3.58 ft below land-surface datum, August 31, 2002; lowest, 11.49 ft. below land-surface datum, March 22-23, 2002, but may have been lower during period of missing record, March 23-28, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 3.58 ft below land-surface datum, August 31, 2002; lowest, 11.49 ft. below land-surface datum, March 22-23 but may have been lower during period of missing record, March 23-28.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.64	5.18	7.48	9.01	9.02	9.21	---	---	---	---	---	3.60
2	5.42	5.76	7.71	8.88	8.87	9.13	---	---	---	---	---	3.59
3	5.47	5.36	7.77	8.88	8.87	9.06	---	---	---	---	---	3.75
4	5.16	5.53	7.81	9.18	8.99	9.06	---	---	---	---	---	4.18
5	5.05	5.75	7.93	8.85	9.04	9.09	---	---	---	---	---	4.24
6	5.17	6.22	7.93	8.65	9.00	9.11	---	---	---	---	---	4.30
7	4.84	6.10	8.04	8.64	9.00	9.20	---	---	---	---	---	4.27
8	5.10	6.26	8.04	8.83	9.08	9.14	---	#9.82	---	---	---	4.21
9	5.19	6.50	8.44	8.94	8.95	9.31	---	---	---	---	---	4.14
10	4.99	6.42	8.49	9.08	8.92	9.82	---	---	---	---	---	4.46
11	4.84	6.48	8.62	9.10	9.15	10.28	---	---	---	---	---	4.53
12	4.80	6.13	8.61	9.05	9.23	10.36	---	---	---	---	---	4.52
13	5.68	5.81	8.48	9.31	9.22	10.22	---	---	---	---	---	4.48
14	5.68	5.86	8.54	9.40	9.16	10.43	---	---	---	---	---	4.43
15	5.07	6.29	8.56	9.35	9.04	10.35	---	---	---	---	---	4.36
16	5.06	6.65	8.55	9.35	9.03	10.40	---	---	---	---	---	4.49
17	5.34	7.21	8.63	9.27	9.00	10.46	---	---	---	---	---	4.61
18	5.26	6.91	8.80	9.01	8.88	10.46	---	---	#7.53	---	---	4.18
19	5.36	6.34	8.90	8.69	8.75	10.20	---	---	---	---	---	4.57
20	5.31	6.24	9.03	8.60	8.86	10.23	---	---	---	---	---	4.94
21	5.11	6.37	8.99	8.67	9.19	10.68	---	#9.19	---	---	#4.43	4.77
22	4.79	6.50	9.04	8.95	9.33	11.23	---	---	---	---	4.37	4.89
23	4.97	7.02	9.02	8.64	9.47	---	---	---	---	---	4.39	4.96
24	5.25	7.32	8.99	8.59	9.46	---	---	---	---	---	4.45	4.99
25	5.00	7.39	9.17	8.78	9.37	---	---	---	---	---	4.31	4.82
26	4.67	7.65	9.15	9.11	9.21	---	---	---	---	#5.21	4.21	4.72
27	5.37	7.61	9.04	9.23	9.20	---	---	---	---	---	3.86	4.54
28	5.25	7.40	9.04	9.19	9.26	---	---	---	---	---	3.91	4.55
29	5.41	7.40	9.14	9.04	---	#9.62	---	---	---	---	3.98	4.79
30	5.09	7.54	9.21	8.91	---	---	---	---	---	---	3.70	5.01
31	5.14	---	9.15	8.91	---	---	---	---	---	---	3.58	---

Result of tapedown

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582314134344801. Local number, CD04006619BDDD1055.

LOCATION.--Lat 58°23′14″,Long 134°34′48″, in SW¹/₄ SW¹/₄ NW¹/₄ sec. 19, T. 40 S., R. 66 E. (Juneau B-2 NW quad), Hydrologic Unit 19010301. Well located near the northwest corner of garage at 9002 Gee Street, Juneau. Owner: Tim and Debbie Banaszak.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 2.0 in., depth 44.2 ft.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS. personnel February 2001 to October 2002; submersible pressure transducer/electic data logger October 1, 2001 to current year.
DATUM.--Elevation of land-surface datum is 46.4 ft above sea level (determined by levels survey). Measuring point: Top of casing 0.80 ft above land-surface datum.
REMARKS.--Well designated as Banaszak well.
PERIOD OF RECORD.--February 2001 to current year.
EXTREMES FOR ERIOD OF RECORD.--Highest water level recorded, 4.88 ft below land-surface datum, August 13, 2002; lowest, 9.54 ft below land-surface datum, April 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 4.88 ft below land-surface datum, August 13; lowest, 9.54 ft below land-surface datum, April 18.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.85	7.28	8.34	8.41	8.72	8.42	9.14	9.15	7.71	7.49	7.08	5.40
2	6.63	7.22	8.44	8.44	8.72	7.93	9.15	9.15	7.69	7.20	7.12	5.62
3	6.64	7.12	8.48	8.48	8.74	7.74	9.17	9.09	7.67	7.03	7.18	5.88
4	6.80	7.16	8.53	8.63	8.82	7.76	9.22	9.10	7.42	7.03	7.27	6.10
5	6.95	7.29	8.62	8.59	8.87	7.88	9.22	9.15	7.19	7.08	7.32	6.29
6	7.01	7.43	8.64	8.50	8.89	8.01	9.23	9.17	7.19	7.09	7.38	6.51
7	6.96	7.53	8.50	8.50	8.90	8.09	9.29	9.18	7.23	7.14	6.81	6.31
8	7.04	7.63	8.45	8.43	8.98	8.23	9.34	9.19	7.36	7.20	5.98	6.28
9	6.95	7.28	8.41	8.25	8.92	8.30	9.32	9.19	7.29	7.26	5.64	6.36
10	6.95	7.27	8.44	8.18	8.76	8.34	9.34	9.09	7.12	7.25	5.60	6.49
11	6.90	7.34	8.51	8.05	8.55	8.41	9.38	8.97	7.09	7.27	5.72	6.55
12	6.87	7.41	8.46	8.06	7.99	8.52	9.39	8.78	7.11	7.24	5.21	6.56
13	7.03	7.50	8.43	8.23	7.98	8.66	9.38	8.62	7.22	7.24	4.88	6.65
14	7.09	7.56	8.50	8.25	7.79	8.74	9.37	8.52	7.23	7.27	4.89	6.84
15	7.06	7.61	8.56	8.16	7.46	8.82	9.42	8.43	7.20	7.24	5.24	6.98
16	6.98	7.72	8.59	8.12	7.28	8.87	9.45	8.38	7.17	7.24	5.73	7.00
17	6.71	7.75	8.69	8.11	7.33	8.90	9.51	8.38	7.17	7.28	6.06	6.87
18	6.52	7.74	8.76	8.02	7.44	8.92	9.52	8.34	7.19	7.32	6.34	6.40
19	6.19	7.72	8.83	7.89	7.60	9.02	9.49	8.29	7.28	7.32	6.48	6.35
20	6.21	7.78	8.89	7.89	7.80	9.06	9.38	8.16	7.39	7.40	6.58	6.36
21	6.16	7.91	8.89	8.02	7.99	9.07	9.28	8.06	7.44	7.37	6.01	6.27
22	6.16	7.99	8.96	8.16	8.10	9.08	9.28	7.99	7.49	7.23	5.76	6.30
23	6.35	7.90	8.71	8.14	8.21	9.10	9.27	7.93	7.55	7.16	5.49	6.56
24	6.61	7.91	8.35	8.22	8.28	9.16	9.25	7.85	7.56	6.87	5.49	6.79
25	6.79	7.94	8.22	8.40	8.36	9.10	9.24	7.80	7.42	6.70	5.80	6.89
26	6.84	8.06	8.19	8.50	8.40	9.07	9.23	7.80	7.29	6.63	6.00	6.89
27	7.06	8.15	8.20	8.56	8.41	9.00	9.23	7.76	7.26	6.64	5.45	6.79
28	7.19	8.15	8.27	8.58	8.48	9.01	9.23	7.72	7.26	6.65	5.16	6.79
29	7.03	8.19	8.33	8.61	---	8.99	9.26	7.71	7.28	6.66	5.05	6.87
30	7.03	8.30	8.37	8.62	---	8.97	9.24	7.76	7.42	6.81	5.05	7.06
31	7.12	---	8.38	8.66	---	9.00	---	7.76	---	6.99	5.25	---

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582314134351201. Local number, CD04006619BCDD2020.

LOCATION.--Lat 58°23′14″, Long 134°35’12″, in SE$\frac{1}{4}$ SW$\frac{1}{4}$ NW$\frac{1}{4}$ sec. 19, T. 40 S., R. 66 E. (Juneau B-2 NW quad), Hydrologic Unit 19010301. Well located near the northwest corner of garage at 9220 Gee Street, Juneau. Owner: Don Thomas

AQUIFER.--Sand and gravel of the Quaternary System.

WELL CHARACTERISTICS.--Diameter 1.5-in. steel casing, depth 49.1 ft, screen opening from 46.1 to 49.1 ft.

INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS personnel April 2000 to January 2001; submersible pressure transducer/electric data logger January 2001 to current year.

DATUM.--Elevation of land-surface datum is 43.09 ft above sea level (determined by levels survey). Measuring point: Top of casing 0.92 ft above land-surface datum.

REMARKS.--Well drilled 1974, designated as Don’s well. Missing record July 21,2002.

PERIOD OF RECORD.--April 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.40 ft below land-surface datum, August 13, 2002; lowest, 10.61 ft below land-surface datum, April 18, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 5.40 ft below land-surface datum, August 13; lowest, 10.61 ft below land-surface datum, April 18.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.66	8.85	9.71	9.59	9.93	9.67	10.29	10.07	7.62	6.86	6.52	6.43
2	7.37	8.88	9.83	9.67	9.90	9.30	10.29	10.07	7.62	6.47	6.62	6.47
3	7.38	8.76	9.81	9.71	9.94	9.09	10.30	10.01	7.57	6.36	6.57	6.73
4	7.64	8.87	9.87	9.85	10.00	9.12	10.32	10.02	7.23	6.40	6.67	6.81
5	7.85	8.95	9.94	9.78	10.06	9.21	10.30	10.10	7.00	6.46	6.66	6.98
6	7.89	9.05	9.95	9.71	10.07	9.30	10.33	10.10	7.00	6.47	6.80	7.15
7	7.83	9.13	9.87	9.71	10.10	9.35	10.40	10.09	7.13	6.57	6.52	6.96
8	7.99	9.20	9.87	9.64	10.18	9.47	10.41	10.10	7.30	6.64	5.84	6.93
9	8.01	8.96	9.81	9.48	10.03	9.51	10.37	10.06	7.11	6.70	5.72	7.00
10	8.01	8.93	9.85	9.40	10.05	9.55	10.39	9.95	6.86	6.60	5.70	7.16
11	7.98	9.01	9.86	9.23	9.84	9.57	10.43	9.81	6.80	6.62	5.87	7.18
12	7.98	9.02	9.83	9.25	9.45	9.72	10.44	9.62	6.84	6.56	5.78	7.21
13	8.18	9.07	9.78	9.44	9.36	9.88	10.41	9.46	7.02	6.61	5.40	7.33
14	8.25	9.11	9.88	9.50	9.24	9.94	10.39	9.36	6.90	6.64	5.44	7.58
15	8.25	9.17	9.88	9.44	8.92	10.02	10.46	9.26	6.74	6.58	5.81	7.48
16	8.34	9.29	9.93	9.43	8.77	10.05	10.51	9.16	6.65	6.71	6.28	7.57
17	8.14	9.34	10.03	9.39	8.77	10.05	10.57	9.15	6.65	6.68	6.43	7.49
18	7.78	9.28	10.06	9.34	8.83	10.07	10.58	9.02	6.67	6.69	6.45	7.38
19	7.53	9.26	10.15	9.21	8.92	10.20	10.52	8.87	6.87	6.72	6.45	7.33
20	7.58	9.29	10.16	9.22	9.15	10.22	10.40	8.57	6.98	6.83	6.50	7.32
21	7.65	9.42	10.15	9.39	9.29	10.18	10.32	8.33	7.02	6.83	---	7.27
22	7.65	9.48	10.21	9.48	9.40	10.19	10.33	8.23	7.12	6.67	6.40	7.43
23	7.86	9.43	10.04	9.42	9.48	10.21	10.33	8.14	7.13	6.62	6.32	7.52
24	8.14	9.42	9.78	9.48	9.54	10.30	10.32	8.00	7.11	6.44	6.31	7.68
25	8.36	9.44	9.57	9.70	9.56	10.19	10.31	7.91	6.87	6.23	6.56	7.53
26	8.36	9.54	9.50	9.78	9.57	10.20	10.28	7.91	6.73	6.16	6.66	7.68
27	8.61	9.56	9.48	9.83	9.60	10.16	10.27	7.83	6.61	6.26	6.38	7.65
28	8.73	9.55	9.55	9.78	9.67	10.20	10.28	7.73	6.62	6.13	6.30	7.63
29	8.67	9.58	9.60	9.78	---	10.14	10.29	7.71	6.72	6.31	6.24	7.67
30	8.67	9.67	9.61	9.80	---	10.10	10.20	7.77	6.85	6.43	6.34	7.89
31	8.75	---	9.61	9.86	---	10.14	---	7.71	---	6.61	6.49	---

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582322134341001. Local number, CD04006619ACAB1050.

LOCATION.--Lat 58°23′20″, Long 134°34′17″, in NE$^1/_4$ SW$^1/_4$ NE$^1/_4$ sec. 19, T. 40 S., R. 66 E. (Juneau B-2 NW quad), Hydrologic Unit 19010301. Well located at 3737 North El Camino Street, 30 ft west of the southwest corner of the house and 70 ft from North El Camino Street, Juneau. Owner: Nicholas Hindman.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 15 ft, screen opening from 2.5 to 4.7 ft, open hole.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, University of Alaska-Southeast, and US Forest Service personnel July 1997 to current year.
DATUM.--Elevation of land-surface datum is 43.87 ft above sea level (determined from levels survey). Measuring point: Top of casing 1.2 ft above land-surface datum.
REMARKS.--Well drilled July 7, 1997 by USGS, designated as Duck Creek #17 (Hindman Well). Well sampled for water quality, September 3, 1997, January 26, 1998, and September 3, 1998.
PERIOD OF RECORD.--July 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.40 ft below land-surface datum, October 23, 1999; lowest, 2.53 ft below land-surface datum, March 12, 1998 and March 21, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	1.22	Jul 02	1.58
Mar 21	2.53		

582326134341901. Local number, CD04006619ADBA1011.

LOCATION.--Lat 58°23′36″, Long 134°34′19″, in NW$^1/_4$ SE$^1/_4$ NE$^1/_4$ sec. 19, T. 40 S., R. 66 E. (Juneau B-2 NW quad), Hydrologic Unit 19010301. Well located 6 ft southeast of a bike path, 25 ft southeast of Mendenhall Loop Road, and about 450 ft southwest of intersection of Mendenhall Loop Road and Valley Boulevard, Juneau. Owner: Bruce B. Bigelow.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 1.25-in. galvanized iron casing, depth 15 ft, screen opening from 11 to 15 ft using sandpoint.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS and University of Alaska-Southeast personnel June 1997 to current year.
DATUM.--Elevation of land-surface datum is 45.76 ft above sea level (determined by levels survey). Measuring point: Top of casing 1.3 ft above land-surface datum.
REMARKS.--Well drilled June 23, 1997 by USGS, designated as Duck Creek #18 (Bigelow Well).
PERIOD OF RECORD.--June 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.01 ft above land-surface datum, July 25 and August 12, 1997; lowest, 2.55 ft below land-surface datum, April 23, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct 11	0.71	Jul 02	1.29
Mar 20	1.75		

SOUTHEAST ALASKA

JUNEAU–CONTINUED

582359134352103. Local number, CD04006618CBCA3019 85177

LOCATION.--Lat 58°23′59″, Long 134°35′21″, SW1/4 NW1/4 SW1/4 sec.18, T. 40 S., R. 66 E. (Juneau B-2 NW quad), Hydrologic Unit 19010301, Well is located in steel gage house by sewage treatment plant on Riverbend Road, 1/4 mile off of the Mendenhall Loop Road, Juneau. Owner: Harlan Olsen.
AQUIFER.--Sand and gravel of the Quaternary System.
WELL CHARACTERISTICS.--Diameter 6-in. PVC casing, depth 40 ft, screen opening from 30 to 40 ft.
INSTRUMENTATION.--Intermittent measurements with chalked steel tape by USGS, November 1983 to current year; continuous strip-chart recorder, November 1983 to August 1984; Digital recorder, August 1984 to April 1997; submersible pressure transducer/ electric data logger, August 1997 to September 1998; electronic data logger and encoder, September 1998 to current year.
DATUM.--Elevation of land-surface datum is 50.53 ft above sea level (determined by levels survey). Measuring point: Top of casing 0.77 ft above land-surface datum.
REMARKS.--Well drilled November 3, 1983 by USGS, designated as Mendenhall well. Well sampled for water quality, May 17, 1984.
PERIOD OF RECORD.--November 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.89 ft below land-surface datum, September 25, 1990; lowest measured, 13.54 ft below land-surface datum, February 2, 1997.
EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 6.06 ft below land-surface datum, August 13-14; lowest, 11.55 ft below land-surface datum, December 23.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.83	8.24	10.34	10.62	---	---	---	---	---	---	---	6.20
2	7.57	8.32	10.56	10.68	---	---	---	---	---	---	---	6.24
3	7.58	8.26	10.63	10.77	---	---	---	---	---	---	---	6.50
4	7.74	8.30	10.72	#11.01	---	---	---	---	---	---	---	6.75
5	7.92	8.48	10.84	---	---	---	---	---	---	---	---	6.96
6	8.13	8.64	10.90	---	---	---	---	---	---	---	9.74	7.20
7	8.08	8.80	10.95	---	---	---	---	---	---	---	8.59	6.63
8	8.21	8.98	10.97	---	---	---	---	---	---	---	7.39	6.63
9	7.94	8.35	10.90	---	---	---	---	---	---	---	7.04	6.72
10	7.94	8.35	10.93	---	---	---	---	---	---	---	6.99	6.90
11	7.79	8.46	10.98	---	---	---	---	---	---	---	7.03	7.04
12	7.74	8.57	10.95	---	---	---	---	---	---	---	6.25	7.05
13	7.83	8.76	10.93	---	---	---	---	---	---	---	6.06	7.19
14	7.98	8.92	11.01	---	---	---	---	---	---	---	6.06	7.38
15	7.98	9.06	11.04	---	---	---	---	---	---	---	6.30	7.53
16	7.81	9.24	11.05	---	---	---	---	---	---	---	6.64	7.56
17	7.34	9.34	11.17	---	---	---	---	---	---	---	6.96	7.49
18	7.09	9.30	11.23	---	---	---	---	---	---	---	7.20	6.93
19	6.85	9.30	11.32	---	---	---	---	---	---	#9.77	7.37	6.90
20	6.85	9.37	11.42	---	---	---	---	---	---	---	7.53	6.89
21	6.90	9.56	11.42	---	---	---	---	---	---	---	6.93	6.74
22	6.90	9.71	11.49	---	---	---	---	---	---	---	6.81	6.77
23	7.07	9.65	11.36	---	---	---	---	---	---	---	6.59	7.01
24	7.32	9.65	10.66	---	---	---	---	---	---	---	6.59	7.26
25	7.54	9.65	10.29	---	---	---	---	---	---	---	6.78	7.41
26	7.57	9.81	10.23	---	---	---	---	---	---	#8.89	6.96	7.44
27	7.87	9.94	10.21	---	---	---	---	---	---	---	6.35	7.44
28	8.10	9.96	10.32	---	---	---	---	---	---	---	6.20	7.44
29	7.87	10.06	10.43	---	---	---	---	---	---	---	6.06	7.56
30	7.87	10.25	10.52	---	---	---	---	---	---	---	6.06	7.82
31	8.05	---	10.53	---	---	---	---	---	---	---	6.09	---

result of tapedown

SOUTH-CENTRAL ALASKA

MUNICIPALITY OF ANCHORAGE.

611725149335401. Local number, SB01400223BCCD1003.

LOCATION.--Lat 61°17′26″, long 149°35′39″, in SE^1/4 SW^1/4 SW^1/4 NW^1/4 sec.23, T.14 N., R.2 W.(Anchorage B-7SW quad), Hydrologic Unit 19020401, at Anchorage Regional Landfill, Glenn Highway and Hiland Road interchange, Anchorage. Owner: Municipality of Anchorage.

AQUIFER.--Sand and gravel of the Quaternary System.

WELL CHARACTERISTICS.--Diameter 6 in., depth 132 ft, cased to 118 ft, open hole. Casing perforated from 111 to 117 ft. Bedrock from 117 ft. Driller's log notes casing break at 80 ft.

INSTRUMENTATION.--Monthly measurement with chalked steel tape by U.S. Geological Survey personnel July 1997 to September 1999. electronic data logger from September 3, 1999 to current year.

DATUM.--Elevation of land surface datum is 542.56 ft above sea level (determined by level survey). Measuring point: Top of casing 3.4 ft above land-surface datum.

REMARKS.--Observation well drilled by Municipality of Anchorage, designated as KB-6.

PERIOD OF RECORD.--August 1986, July 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.88 ft below land-surface datum, June 7, 2000; lowest, 114.25 ft below land-surface datum, Aug. 21, 1986.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 109.02 ft. below land-surface datum, July 3; lowest, 110.83 ft. below land-surface datum, April 15 and April 16.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVELS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110.49	110.53	110.59	110.68	110.73	110.75	110.81	110.64	109.78	109.06	109.36	110.00
2	110.52	110.54	110.58	110.69	110.72	110.78	110.80	110.59	109.75	109.04	109.38	110.03
3	110.49	110.54	110.60	110.71	110.70	110.78	110.80	110.59	109.71	109.02	109.39	110.04
4	110.49	110.57	110.60	110.68	110.71	110.77	110.80	110.59	109.67	109.03	109.40	110.05
5	110.48	110.55	110.60	110.64	110.74	110.78	110.80	110.56	109.65	109.04	109.41	110.05
6	110.51	110.55	110.62	110.69	110.72	110.77	110.81	110.55	109.61	109.05	109.42	110.06
7	110.52	110.55	110.62	110.71	110.72	110.77	110.82	110.52	109.56	109.05	109.44	110.08
8	110.50	110.55	110.61	110.69	110.73	110.78	110.81	110.49	109.52	109.06	109.47	110.11
9	110.50	110.55	110.62	110.70	110.69	110.76	110.81	110.48	109.49	109.07	109.49	110.12
10	110.52	110.55	110.62	110.71	110.73	110.77	110.82	110.46	109.46	109.05	109.49	110.15
11	110.52	110.56	110.60	110.71	110.73	110.77	110.82	110.44	109.43	109.07	109.51	110.15
12	110.53	110.55	110.64	110.72	110.73	110.79	110.82	110.41	109.40	109.09	109.51	110.14
13	110.52	110.55	110.65	110.71	110.70	110.79	110.81	110.38	109.36	109.07	109.58	110.16
14	110.52	110.56	110.63	110.69	110.76	110.79	110.82	110.36	109.30	109.09	109.60	110.16
15	110.50	110.56	110.63	110.69	110.74	110.78	110.83	110.34	109.28	109.10	109.61	110.19
16	110.51	110.58	110.65	110.70	110.74	110.79	110.83	110.31	109.25	109.11	109.63	110.20
17	110.49	110.53	110.65	110.67	110.74	110.78	110.82	110.29	109.22	109.11	109.64	110.20
18	110.54	110.56	110.65	110.70	110.76	110.80	110.81	110.25	109.21	109.14	109.66	110.21
19	110.53	110.55	110.62	110.70	110.76	110.80	110.81	110.22	109.19	109.16	109.68	110.23
20	110.51	110.58	110.62	110.74	110.77	110.79	110.81	110.18	109.16	109.18	109.68	110.23
21	110.53	110.58	110.64	110.72	110.76	110.78	110.81	110.16	109.14	109.18	109.72	110.23
22	110.54	110.59	110.64	110.70	110.76	110.78	110.79	110.15	109.11	109.19	109.75	110.23
23	110.55	110.61	110.65	110.71	110.76	110.79	110.77	110.11	109.10	109.19	109.78	110.25
24	110.55	110.59	110.66	110.73	110.76	110.78	110.76	110.06	109.07	109.21	109.82	110.23
25	110.54	110.59	110.66	110.73	110.75	110.78	110.74	110.02	109.07	109.25	109.84	110.25
26	110.53	110.59	110.66	110.72	110.75	110.79	110.72	109.98	109.06	109.24	109.87	110.24
27	110.54	110.58	110.65	110.72	110.74	110.80	110.70	109.94	109.06	109.27	109.88	110.27
28	110.54	110.58	110.68	110.72	110.75	110.80	110.67	109.91	109.03	109.29	109.90	110.28
29	110.54	110.59	110.68	110.72	---	110.80	110.67	109.90	109.03	109.30	109.93	110.29
30	110.54	110.60	110.69	110.73	---	110.80	110.61	109.87	109.05	109.33	109.94	110.28
31	110.53	---	110.68	110.72	---	110.81	---	109.83	---	109.35	109.97	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH

644321147163801. Local number, FD00200223DDBA1003.

LOCATION.--Lat 64°43'21", Long 147°16'38", in NW^1/4 SE^1/4 SE^1/4 sec. 23, T.2 S., R.2 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 0.3 mi east of the Dyke Road, Old Richardson Highway and Levee Road intersection in city of North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 20.4 ft, screen opening from 15.4 to 19.9 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 508.1 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.62 ft above land surface datum.

REMARKS.--Observation well drilled April 10, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-14. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.49 ft below land-surface datum, August 22, 2002; lowest, 12.14 ft below land-surface datum, December 9-11, 2001.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 9.49 ft below land-surface datum, August 22; lowest, 12.14 ft below land-surface datum, December 9-11.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.57	12.00	12.00	11.93	11.93	11.91	11.26	10.70	10.82	10.18	10.18
2	---	11.55	12.03	11.99	11.91	11.93	11.91	11.05	10.60	10.63	10.23	10.27
3	---	11.51	12.03	12.00	11.90	11.93	11.91	10.90	10.59	10.29	10.27	10.34
4	---	11.50	12.07	12.01	11.90	11.92	11.90	10.79	10.63	10.29	10.34	10.39
5	---	11.48	12.09	11.98	11.91	11.91	11.89	10.73	10.68	9.94	10.40	10.42
6	---	11.48	12.10	11.99	11.91	11.91	11.90	10.72	10.76	9.88	10.44	10.29
7	---	11.49	12.11	11.99	11.91	11.91	11.90	10.75	10.81	9.91	10.41	10.31
8	---	11.50	12.12	11.99	11.91	11.91	11.89	10.77	10.85	9.95	10.34	10.44
9	---	11.55	12.13	11.98	11.90	11.91	11.89	10.80	10.86	9.99	10.29	10.51
10	---	11.60	12.13	11.99	11.89	11.90	11.89	10.88	10.87	10.02	10.21	10.55
11	---	11.66	12.12	11.98	11.90	11.90	11.90	10.92	10.79	10.08	10.23	10.59
12	---	11.70	12.12	11.98	11.89	11.91	11.90	10.85	10.79	10.17	10.28	10.63
13	11.54	11.74	12.13	11.97	11.88	11.93	11.90	10.73	10.78	10.24	10.28	10.67
14	11.56	11.77	12.10	11.96	11.88	11.94	11.90	10.71	10.75	10.30	10.35	10.72
15	11.59	11.76	12.08	11.99	11.89	11.95	11.91	10.69	10.72	10.35	10.38	10.76
16	11.61	11.77	12.08	11.97	11.89	11.95	11.93	10.69	10.72	10.37	9.86	10.81
17	11.64	11.76	12.09	11.95	11.87	11.95	11.92	10.68	10.75	10.39	9.59	10.84
18	11.67	11.76	12.09	11.94	11.87	11.96	11.92	10.67	10.79	10.37	9.53	10.84
19	11.72	11.78	12.08	11.92	11.88	11.98	11.92	10.65	10.70	10.37	9.53	10.90
20	11.76	11.78	12.06	11.90	11.89	11.97	11.90	10.61	10.68	10.27	9.57	10.96
21	11.78	11.79	12.06	11.89	11.90	11.97	11.90	10.56	10.67	10.27	9.55	10.99
22	11.82	11.82	12.07	11.86	11.90	11.96	11.88	10.52	10.67	10.30	9.49	11.03
23	11.86	11.85	12.08	11.86	11.91	11.96	11.88	10.45	10.70	10.28	9.56	11.06
24	11.90	11.88	12.08	11.87	11.92	11.95	11.87	10.42	10.72	10.27	9.56	11.10
25	11.93	11.89	12.07	11.90	11.92	11.94	11.86	10.40	10.69	9.99	9.59	11.13
26	11.96	11.91	12.06	11.92	11.92	11.94	11.84	10.39	10.69	10.00	9.66	11.11
27	11.97	11.93	12.05	11.92	11.93	11.94	11.79	10.41	10.72	9.94	9.75	11.10
28	11.88	11.94	12.05	11.94	11.92	11.94	11.69	10.43	10.75	9.94	9.85	11.13
29	11.77	11.96	12.03	11.95	---	11.93	11.57	10.45	10.78	9.99	9.95	11.16
30	11.68	11.98	12.03	11.95	---	11.92	11.41	10.53	10.81	10.07	10.00	11.09
31	11.61	---	12.02	11.94	---	11.91	---	10.63	---	10.11	10.09	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644331147183901. Local number, FD00200222DABD1006.

LOCATION.--Lat 64°43'31", Long 147°18'39", in $NW^1/4$ $NE^1/4$ $SE^1/4$ sec. 22, T.2 S., R.2 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located on north side of Old Richardson Highway and VFW Road intersection in city of North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 17.1 ft, screen opening from 12.1 to 16.6 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 498.1 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.57 ft above land surface datum.

REMARKS.--Observation well drilled April 9, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-16. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.21 ft below land-surface datum, August 20-21, 2002; lowest, 7.10 ft below land-surface datum, April 15-16, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.21 ft below land-surface datum, August 20-21; lowest, 7.10 ft below land-surface datum, April 15-16.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	6.10	6.80	6.80	6.84	6.93	7.07	6.04	5.51	5.32	4.59	4.99
2	---	6.09	6.84	6.80	6.83	6.93	7.07	5.81	5.49	5.25	4.63	5.06
3	---	6.08	6.86	6.81	6.83	6.93	7.08	5.62	5.48	5.11	4.66	5.12
4	---	6.07	6.89	6.82	6.83	6.93	7.07	5.51	5.48	5.02	4.74	5.16
5	---	6.05	6.91	6.81	6.84	6.93	7.07	5.45	5.50	4.78	4.83	5.21
6	---	6.05	6.90	6.83	6.84	6.93	7.07	5.46	5.55	4.67	4.87	5.21
7	---	6.11	6.90	6.84	6.84	6.94	7.06	5.50	5.59	4.65	4.84	5.21
8	---	6.18	6.89	6.83	6.85	6.94	7.05	5.60	5.59	4.63	4.82	5.25
9	---	6.27	6.89	6.82	6.84	6.95	7.05	5.74	5.59	4.63	4.81	5.26
10	---	6.35	6.87	6.83	6.84	6.95	7.05	5.83	5.59	4.63	4.73	5.27
11	---	6.42	6.85	6.83	6.84	6.95	7.06	5.89	5.54	4.67	4.73	5.30
12	---	6.47	6.84	6.83	6.84	6.97	7.07	5.86	5.52	4.76	4.79	5.34
13	6.54	6.51	6.83	6.82	6.83	6.99	7.07	5.74	5.42	4.84	4.80	5.39
14	6.57	6.50	6.80	6.82	6.83	7.00	7.07	5.70	5.33	4.86	4.84	5.44
15	6.60	6.50	6.78	6.85	6.84	7.01	7.08	5.67	5.30	4.87	4.86	5.49
16	6.64	6.50	6.77	6.82	6.83	7.02	7.09	5.62	5.29	4.87	4.65	5.55
17	6.68	6.46	6.77	6.79	6.82	7.03	7.08	5.61	5.30	4.84	4.42	5.60
18	6.72	6.46	6.76	6.78	6.83	7.04	7.08	5.59	5.36	4.82	4.36	5.65
19	6.77	6.49	6.78	6.76	6.84	7.06	7.07	5.54	5.36	4.78	4.24	5.70
20	6.82	6.50	6.77	6.74	6.85	7.06	7.04	5.47	5.34	4.73	4.21	5.76
21	6.86	6.51	6.77	6.73	6.87	7.07	7.03	5.42	5.33	4.72	4.21	5.80
22	6.91	6.53	6.78	6.72	6.87	7.08	7.01	5.33	5.31	4.72	4.23	5.83
23	6.94	6.56	6.79	6.72	6.90	7.08	6.99	5.25	5.30	4.68	4.27	5.87
24	6.98	6.60	6.79	6.75	6.91	7.08	6.99	5.21	5.29	4.66	4.26	5.92
25	7.02	6.63	6.80	6.81	6.90	7.08	6.98	5.20	5.30	4.52	4.27	5.96
26	7.05	6.64	6.80	6.83	6.90	7.08	6.94	5.20	5.28	4.49	4.34	6.00
27	6.75	6.67	6.80	6.85	6.92	7.08	6.82	5.22	5.27	4.46	4.46	6.01
28	6.51	6.70	6.79	6.88	6.91	7.08	6.64	5.23	5.28	4.45	4.59	6.03
29	6.34	6.73	6.78	6.88	---	7.06	6.44	5.25	5.31	4.47	4.73	6.04
30	6.22	6.77	6.79	6.87	---	7.06	6.23	5.34	5.33	4.51	4.82	6.02
31	6.13	---	6.80	6.85	---	7.07	---	5.45	---	4.53	4.90	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644345147172101. Local number, FD00200223BDAD1002.

LOCATION.--Lat 64°43' 45", Long 147°17'21", in NE^1/4 SE^1/4 NW^1/4 sec. 23, T.2 S., R.2 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 0.2 mi south on Dyke Road from intersection with Laurance Road in city of North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. pvc casing, depth 13.0 ft, screen opening from 7.8 to 12.8 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 498.1 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.10 ft above land surface datum.

REMARKS.--Observation well drilled June 7, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-13. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.75 ft below land-surface datum, August 24-25, 2002; lowest, 8.00 ft below land-surface datum, April 16, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 5.75 ft below land-surface datum, August 24-25; lowest, 8.00 ft below land-surface datum, April 16.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.44	7.72	7.83	7.85	7.90	7.98	7.22	6.61	6.63	6.09	6.02
2	---	7.42	7.74	7.83	7.84	7.90	7.99	7.11	6.62	6.61	6.10	6.07
3	---	7.40	7.75	7.83	7.84	7.91	7.99	7.03	6.60	6.51	6.12	6.10
4	---	7.39	7.78	7.84	7.83	7.91	7.98	6.95	6.60	6.47	6.15	6.12
5	---	7.37	7.80	7.82	7.84	7.90	7.98	6.89	6.61	6.38	6.18	6.14
6	---	7.36	7.81	7.82	7.85	7.90	7.98	6.85	6.64	6.27	6.22	6.13
7	---	7.36	7.82	7.83	7.84	7.90	7.98	6.83	6.66	6.21	6.24	6.13
8	---	7.36	7.83	7.84	7.85	7.90	7.97	6.83	6.68	6.18	6.23	6.16
9	---	7.38	7.84	7.83	7.84	7.91	7.97	6.84	6.68	6.16	6.23	6.18
10	---	7.41	7.84	7.84	7.83	7.90	7.97	6.86	6.70	6.15	6.18	6.21
11	---	7.45	7.84	7.85	7.84	7.90	7.98	6.88	6.70	6.15	6.18	6.23
12	---	7.48	7.84	7.85	7.83	7.91	7.98	6.89	6.68	6.17	6.19	6.25
13	7.31	7.51	7.85	7.85	7.83	7.92	7.98	6.85	6.66	6.20	6.20	6.28
14	7.34	7.53	7.84	7.84	7.82	7.93	7.98	6.82	6.63	6.21	6.23	6.31
15	7.36	7.53	7.83	7.86	7.84	7.93	7.98	6.80	6.60	6.23	6.24	6.34
16	7.38	7.54	7.83	7.85	7.84	7.94	7.99	6.79	6.59	6.24	6.10	6.38
17	7.40	7.54	7.83	7.83	7.83	7.94	7.99	6.78	6.59	6.25	5.94	6.41
18	7.43	7.54	7.83	7.82	7.83	7.95	7.99	6.76	6.61	6.25	5.89	6.44
19	7.46	7.55	7.83	7.81	7.84	7.96	7.99	6.74	6.60	6.24	5.83	6.47
20	7.50	7.55	7.81	7.81	7.85	7.97	7.97	6.71	6.59	6.22	5.79	6.51
21	7.52	7.56	7.81	7.80	7.87	7.97	7.97	6.68	6.58	6.21	5.79	6.54
22	7.55	7.57	7.82	7.78	7.87	7.97	7.96	6.66	6.58	6.21	5.76	6.57
23	7.59	7.59	7.84	7.77	7.87	7.97	7.95	6.62	6.58	6.19	5.76	6.59
24	7.62	7.62	7.84	7.78	7.88	7.98	7.94	6.58	6.58	6.19	5.75	6.62
25	7.66	7.63	7.84	7.81	7.88	7.97	7.93	6.55	6.58	6.12	5.75	6.64
26	7.69	7.65	7.84	7.83	7.88	7.98	7.90	6.54	6.58	6.09	5.77	6.67
27	7.70	7.67	7.84	7.83	7.89	7.98	7.81	6.53	6.58	6.07	5.80	6.69
28	7.64	7.67	7.85	7.84	7.88	7.99	7.70	6.52	6.59	6.05	5.84	6.70
29	7.59	7.68	7.84	7.85	---	7.99	7.52	6.52	6.60	6.05	5.90	6.73
30	7.53	7.70	7.84	7.85	---	7.98	7.30	6.54	6.62	6.05	5.94	6.74
31	7.48	---	7.84	7.85	---	7.99	---	6.58	---	6.06	5.97	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644400147151501. Local number, FD00200224ABBB1001 51659.

LOCATION.--Lat 64°44′00″, long 147°15′15″, in NW^1/4 NW^1/4 NE^1/4 sec. 24, T.2 S., R.2 E., (Fairbanks C-1) Fairbanks Meridian, Hydrologic Unit 19040506, in road right-of-way at intersection of Nelson and Laurence Roads near North Pole. Owner: U.S. Army Corps of Engineers.
AQUIFER.--Chena Alluvium of Quaternary age.
WELL CHARACTERISTICS.--Diameter 4-in., depth 30 ft, screened from 27.5 to 30 ft using a 2-in. diameter well point.
INSTRUMENTATION.--Strip-chart recorder from June 1976 to May 1980. Digital recorder--1-hour punch interval, from November 1983 to June 1995. Electronic data logger from June 1995 to present.
DATUM.--Elevation of land-surface datum is 503.5 ft above sea level (determined by levels survey). Measuring point: top of casing 2.97 ft above land-surface datum.
REMARKS.--Observation well drilled by the U.S. Army Corps of Engineers designated as P-251.
PERIOD OF RECORD.--June 1976 to May 1980 and November 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.84 ft below land-surface datum, June 7, 1992; lowest, 13.70 ft below land-surface datum, February 18-20, 1988.
EXTREMES FOR CURRENT YEAR.--Highest water level measured, 11.42 ft below land-surface datum, September 6-7; lowest, 13.58 ft below land-surface datum, April 18-24.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.39	12.95	13.19	13.45	13.47	13.50	13.55	13.13	12.32	12.33	11.93	11.45
2	12.43	12.96	13.21	13.45	13.47	13.51	13.55	13.05	12.31	12.30	11.93	11.45
3	12.44	12.96	13.22	13.45	13.47	13.51	13.55	12.99	12.30	12.28	11.92	11.44
4	12.46	12.97	13.23	13.45	13.47	13.51	13.55	12.93	12.29	12.26	11.92	11.44
5	12.47	12.97	13.24	13.45	13.48	13.51	13.55	12.88	12.30	12.23	11.93	11.43
6	12.49	12.97	13.26	13.45	13.47	13.51	13.55	12.84	12.30	12.20	11.94	11.42
7	12.50	12.97	13.27	13.46	13.48	13.51	13.55	12.79	12.31	12.17	11.95	11.42
8	12.52	12.97	13.28	13.46	13.48	13.52	13.55	12.75	12.31	12.14	11.96	11.43
9	12.53	12.98	13.29	13.46	13.47	13.51	13.55	12.72	12.30	12.11	11.97	11.44
10	12.55	12.98	13.31	13.47	13.47	13.51	13.55	12.69	12.32	12.09	11.95	11.45
11	12.57	12.99	13.32	13.47	13.48	13.51	13.55	12.66	12.33	12.07	11.94	11.45
12	12.59	13.00	13.33	13.47	13.47	13.52	13.55	12.62	12.34	12.06	11.94	11.45
13	12.61	13.01	13.35	13.47	13.47	13.52	13.55	12.60	12.34	12.04	11.96	11.47
14	12.63	13.02	13.35	13.47	13.48	13.52	13.55	12.57	12.33	12.04	11.98	11.48
15	12.64	13.03	13.36	13.48	13.48	13.52	13.56	12.55	12.32	12.03	11.95	11.50
16	12.66	13.05	13.37	13.48	13.48	13.52	13.56	12.54	12.31	12.02	11.91	11.53
17	12.67	13.05	13.38	13.47	13.48	13.53	13.56	12.52	12.31	12.03	11.88	11.55
18	12.69	13.07	13.39	13.48	13.48	13.53	13.57	12.50	12.31	12.03	11.83	11.56
19	12.72	13.07	13.39	13.48	13.49	13.53	13.57	12.48	12.32	12.03	11.80	11.60
20	12.74	13.08	13.39	13.48	13.49	13.53	13.57	12.46	12.32	12.02	11.75	11.63
21	12.75	13.09	13.40	13.47	13.49	13.53	13.57	12.44	12.30	12.02	11.71	11.64
22	12.78	13.10	13.41	13.46	13.49	13.54	13.57	12.42	12.29	12.01	11.67	11.65
23	12.80	13.12	13.42	13.46	13.49	13.54	13.57	12.41	12.29	12.00	11.63	11.67
24	12.82	13.13	13.41	13.46	13.49	13.54	13.57	12.39	12.29	12.00	11.60	11.69
25	12.84	13.14	13.42	13.46	13.49	13.54	13.56	12.37	12.29	11.99	11.56	11.70
26	12.86	13.15	13.43	13.46	13.49	13.54	13.55	12.36	12.29	11.98	11.53	11.70
27	12.88	13.16	13.43	13.46	13.49	13.54	13.51	12.34	12.30	11.97	11.50	11.73
28	12.90	13.16	13.44	13.47	13.50	13.55	13.44	12.33	12.29	11.96	11.48	11.75
29	12.92	13.17	13.44	13.47	---	13.55	13.32	12.33	12.30	11.95	11.46	11.78
30	12.94	13.18	13.44	13.47	---	13.55	13.22	12.33	12.31	11.94	11.45	11.78
31	12.94	---	13.45	13.47	---	13.55	---	12.33	---	11.93	11.45	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644401147193801. Local number, FD00200222BABA1005.

LOCATION.--Lat 64°44'01", Long 147°19'38", in $NW^1/4$ $NE^1/4$ $NW^1/4$ sec. 22, T.2 S., R.2 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located at southeast corner of Laurance Road and Old Richardson Highway intersection in city of North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. pvc casing, depth 14.1 ft, screen opening from 9.1 to 13.6 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 493.7 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of inner casing 3.56 ft above land surface datum.

REMARKS.--Observation well drilled April 9, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-15. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.55 ft below land-surface datum, August 9, 2001; lowest, 6.27 ft below land-surface datum, April 15-19, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.56 ft below land-surface datum, August 22, 2002; lowest, 6.27 ft below land-surface datum, April 15-19, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	5.32	5.81	5.83	5.93	6.06	6.23	5.38	4.76	4.58	4.01	4.15
2	---	5.29	5.84	5.84	5.92	6.06	6.23	5.19	4.77	4.53	4.04	4.23
3	---	5.25	5.86	5.84	5.92	6.07	6.24	5.05	4.75	4.43	4.07	4.28
4	---	5.23	5.88	5.87	5.92	6.07	6.24	4.93	4.74	4.37	4.13	4.31
5	---	5.20	5.89	5.85	5.94	6.07	6.24	4.86	4.75	4.22	4.18	4.35
6	---	5.19	5.89	5.86	5.94	6.07	6.24	4.85	4.80	4.10	4.23	4.35
7	---	5.21	5.89	5.88	5.94	6.07	6.24	4.85	4.82	4.05	4.23	4.35
8	---	5.26	5.88	5.88	5.95	6.08	6.24	4.87	4.81	4.03	4.23	4.40
9	---	5.33	5.88	5.88	5.94	6.09	6.24	4.91	4.82	4.02	4.23	4.41
10	---	5.40	5.88	5.88	5.93	6.08	6.23	4.95	4.82	4.01	4.14	4.43
11	---	5.47	5.85	5.90	5.95	6.09	6.24	5.02	4.78	4.03	4.14	4.46
12	---	5.50	5.85	5.89	5.94	6.10	6.25	5.06	4.75	4.08	4.17	4.49
13	5.65	5.54	5.84	5.88	5.94	6.12	6.25	5.00	4.67	4.13	4.18	4.54
14	5.68	5.55	5.81	5.88	5.94	6.13	6.25	4.98	4.61	4.16	4.23	4.59
15	5.70	5.55	5.80	5.91	5.97	6.14	6.26	4.96	4.58	4.19	4.23	4.63
16	5.73	5.56	5.79	5.88	5.97	6.15	6.26	4.92	4.58	4.21	3.95	4.69
17	5.77	5.53	5.79	5.86	5.96	6.16	6.26	4.91	4.58	4.21	3.77	4.75
18	5.81	5.53	5.79	5.86	5.96	6.17	6.26	4.89	4.61	4.21	3.68	4.79
19	5.86	5.55	5.79	5.85	5.98	6.18	6.26	4.85	4.61	4.21	3.63	4.85
20	5.91	5.55	5.77	5.84	5.99	6.19	6.24	4.80	4.58	4.17	3.60	4.91
21	5.94	5.56	5.78	5.83	6.00	6.20	6.23	4.75	4.57	4.16	3.60	4.95
22	5.98	5.59	5.79	5.82	6.01	6.21	6.22	4.70	4.56	4.16	3.56	4.99
23	6.03	5.61	5.81	5.82	6.02	6.21	6.21	4.64	4.56	4.13	3.57	5.03
24	6.06	5.64	5.81	5.84	6.03	6.21	6.21	4.60	4.56	4.13	3.60	5.08
25	6.10	5.67	5.81	5.88	6.03	6.21	6.20	4.58	4.56	3.99	3.60	5.12
26	6.14	5.68	5.81	5.90	6.03	6.21	6.16	4.56	4.55	3.96	3.65	5.16
27	5.93	5.70	5.82	5.92	6.05	6.21	6.06	4.56	4.55	3.93	3.73	5.19
28	5.75	5.73	5.83	5.94	6.05	6.22	5.92	4.55	4.55	3.92	3.82	5.21
29	5.61	5.75	5.82	5.95	---	6.23	5.74	4.56	4.57	3.92	3.93	5.24
30	5.49	5.79	5.82	5.95	---	6.22	5.55	4.62	4.59	3.94	4.00	5.22
31	5.39	---	5.84	5.94	---	6.23	---	4.71	---	3.96	4.07	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644402147132801. Local number, FD00200319BAAB1001.

LOCATION.--Lat 64°44'02", Long 147°13'28", in NE^1/4 NE^1/4 NW^1/4 sec. 19, T.2 S., R.3 E., (Fairbanks C-1 NE quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 1.2 mi. east of gate at gravel road from U.S. Army Corps of Engineers office, then north of gravel road beneath power lines, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 24.3 ft, screen opening from 19.2 to 24.2 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/electronic data logger from October 5, 2001 to current year.

DATUM.--Elevation of land-surface datum is 503.5 ft. above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 6.20 ft. above land surface datum.

REMARKS.--Observation well drilled September 7, 1994 by the U.S. Army Corps of Engineers and designated as USAP-1. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.10 ft below land-surface datum, September 15, 2002; lowest, 14.62 ft below land-surface datum, April 24-26, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 12.10 ft below land-surface datum, September 15; lowest, 14.62 ft below land-surface datum, April 24-26.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.71	14.03	14.34	14.45	14.52	14.57	14.35	13.37	13.32	12.98	12.36
2	---	13.72	14.04	14.34	14.45	14.52	14.57	14.24	13.36	13.32	12.97	12.34
3	---	13.74	14.05	14.35	14.45	14.53	14.57	14.15	13.35	13.32	12.95	12.30
4	---	13.76	14.07	14.35	14.46	14.53	14.57	14.06	13.34	13.32	12.94	12.28
5	13.34	13.78	14.08	14.35	14.46	14.53	14.57	13.98	13.33	13.31	12.93	12.24
6	13.35	13.79	14.08	14.35	14.46	14.53	14.57	13.94	13.33	13.30	12.93	12.22
7	13.38	13.80	14.09	14.35	14.46	14.53	14.57	13.93	13.32	13.29	12.93	12.20
8	13.39	13.81	14.11	14.37	14.47	14.53	14.58	13.89	13.32	13.27	12.93	12.19
9	13.39	13.81	14.12	14.37	14.47	14.53	14.58	13.87	13.31	13.25	12.94	12.18
10	13.40	13.82	14.13	14.38	14.46	14.53	14.58	13.84	13.31	13.23	12.92	12.16
11	13.42	13.83	14.13	14.39	14.47	14.53	14.58	13.82	13.31	13.21	12.92	12.14
12	13.43	13.84	14.14	14.40	14.47	14.54	14.58	13.79	13.32	13.19	12.92	12.13
13	13.46	13.85	14.16	14.40	14.47	14.54	14.58	13.76	13.32	13.16	12.93	12.11
14	13.48	13.86	14.17	14.40	14.48	14.54	14.59	13.73	13.32	13.15	12.95	12.11
15	13.49	13.86	14.17	14.41	14.49	14.55	14.59	13.70	13.31	13.14	12.94	12.10
16	13.49	13.87	14.18	14.42	14.49	14.55	14.59	13.69	13.31	13.12	12.93	12.11
17	13.50	13.89	14.20	14.42	14.49	14.55	14.59	13.67	13.30	13.10	12.92	12.11
18	13.51	13.89	14.21	14.42	14.49	14.55	14.60	13.64	13.30	13.09	12.90	12.11
19	13.54	13.91	14.22	14.42	14.50	14.55	14.60	13.61	13.30	13.08	12.88	12.12
20	13.55	13.91	14.23	14.43	14.50	14.56	14.60	13.59	13.31	13.07	12.84	12.15
21	13.55	13.92	14.23	14.43	14.50	14.56	14.60	13.56	13.30	13.06	12.81	12.16
22	13.57	13.93	14.25	14.43	14.50	14.56	14.60	13.54	13.30	13.05	12.77	12.16
23	13.59	13.95	14.27	14.43	14.50	14.55	14.60	13.52	13.30	13.04	12.74	12.16
24	13.61	13.97	14.28	14.43	14.50	14.55	14.61	13.50	13.30	13.04	12.69	12.17
25	13.64	13.98	14.28	14.44	14.51	14.55	14.61	13.47	13.30	13.03	12.64	12.17
26	13.64	13.99	14.29	14.44	14.51	14.55	14.61	13.45	13.30	13.02	12.59	12.17
27	13.64	14.00	14.30	14.44	14.51	14.56	14.60	13.43	13.30	13.02	12.54	12.19
28	13.65	14.00	14.31	14.44	14.51	14.56	14.58	13.41	13.30	13.02	12.50	12.20
29	13.67	14.01	14.32	14.44	---	14.56	14.54	13.40	13.30	13.01	12.46	12.24
30	13.69	14.02	14.33	14.45	---	14.57	14.45	13.39	13.31	12.99	12.42	12.25
31	13.70	---	14.33	14.45	---	14.57	---	13.38	---	12.98	12.38	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644402147150401. Local number, FD00200224ABBA1002.

LOCATION.--Lat 64°44'02", Long 147°15'04", in NW^1/4 NW^1/4 NE^1/4 sec. 24, T.2 S., R.2 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 0.1 mi east of Laurance Road and Nelson Road intersection, then 50 ft east of road behind grove of trees towards levy, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. pvc casing, depth 19.4 ft, screen openings from 9.4 to 13.9 ft and 14.4 to 18.9 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 5, 2001 to current year.

DATUM.--Elevation of land-surface datum is 502.8 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.70 ft above land surface datum.

REMARKS.--Observation well drilled March 12, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-11. Records are fair due to unquantified movement of the measuring point. Missing daily values October 29, 31 and November 1, 2 due to equipment malfunction.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.11 ft below land-surface datum, September 7-8, 2002; lowest, 13.31 ft below land-surface datum, April 19 and 21-25, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 11.11 ft below land-surface datum, September 7-8; lowest, 13.31 ft below land-surface datum, April 19 and 21-25.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	12.83	13.11	13.16	13.21	13.28	12.90	12.05	12.09	11.67	11.16
2	---	---	12.85	13.11	13.16	13.22	13.29	12.81	12.05	12.09	11.67	11.16
3	---	12.58	12.85	13.12	13.16	13.23	13.29	12.76	12.04	12.06	11.67	11.14
4	---	12.59	12.87	13.13	13.15	13.24	13.28	12.70	12.04	12.03	11.66	11.14
5	12.12	12.61	12.88	13.11	13.17	13.23	13.28	12.65	12.04	12.02	11.66	11.13
6	12.14	12.61	12.89	13.11	13.17	13.23	13.28	12.60	12.04	11.99	11.67	11.12
7	12.16	12.61	12.90	13.11	13.17	13.23	13.28	12.56	12.04	11.96	11.68	11.11
8	12.16	12.61	12.92	13.12	13.18	13.23	13.28	12.51	12.04	11.93	11.69	11.11
9	12.17	12.61	12.93	13.13	13.17	13.22	13.28	12.48	12.05	11.90	11.70	11.12
10	12.18	12.62	12.94	13.13	13.16	13.21	13.27	12.45	12.05	11.88	11.69	11.13
11	12.21	12.63	12.95	13.15	13.17	13.21	13.28	12.42	12.07	11.85	11.68	11.12
12	12.23	12.63	12.96	13.16	13.17	13.22	13.28	12.39	12.08	11.83	11.67	11.12
13	12.26	12.65	12.98	13.16	13.16	13.23	13.28	12.36	12.08	11.81	11.68	11.13
14	12.27	12.65	13.00	13.15	13.17	13.24	13.28	12.33	12.07	11.80	11.71	11.14
15	12.29	12.66	13.00	13.16	13.18	13.24	13.28	12.31	12.07	11.80	11.70	11.15
16	12.30	12.68	13.01	13.15	13.18	13.24	13.29	12.29	12.06	11.79	11.67	11.18
17	12.31	12.69	13.02	13.15	13.18	13.24	13.29	12.28	12.06	11.78	11.64	11.20
18	12.33	12.69	13.03	13.15	13.18	13.24	13.30	12.25	12.06	11.78	11.60	11.21
19	12.36	12.71	13.04	13.15	13.19	13.26	13.29	12.23	12.07	11.77	11.56	11.24
20	12.37	12.71	13.03	13.16	13.20	13.26	13.30	12.20	12.06	11.77	11.51	11.27
21	12.37	12.73	13.03	13.16	13.20	13.26	13.30	12.19	12.06	11.76	11.47	11.30
22	12.40	12.74	13.05	13.15	13.21	13.26	13.31	12.18	12.05	11.76	11.43	11.30
23	12.43	12.76	13.07	13.15	13.21	13.25	13.30	12.16	12.05	11.75	11.39	11.31
24	12.46	12.78	13.07	13.15	13.21	13.25	13.30	12.14	12.05	11.75	11.35	11.33
25	12.47	12.79	13.08	13.16	13.20	13.25	13.30	12.12	12.05	11.74	11.32	11.34
26	12.48	12.80	13.08	13.15	13.20	13.25	13.29	12.10	12.05	11.72	11.28	11.34
27	12.49	12.81	13.09	13.15	13.20	13.26	13.27	12.09	12.06	11.72	11.24	11.37
28	12.52	12.81	13.10	13.15	13.20	13.27	13.21	12.07	12.06	11.71	11.22	11.38
29	---	12.82	13.11	13.15	---	13.27	13.11	12.06	12.07	11.70	11.20	11.42
30	12.55	12.82	13.11	13.15	---	13.28	12.99	12.06	12.08	11.69	11.17	11.43
31	---	---	13.12	13.16	---	13.28	---	12.06	---	11.68	11.16	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644402147182601. Local number, FD00200222AAAA1004.

LOCATION.--Lat 64°44'02", Long 147°18'26", in NE1/4 NE1/4 NE1/4 sec. 22, T.2 S., R.2 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 25 ft southeast of southeast corner of Laurance Road and Treaty Street intersection, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. pvc casing, depth 15.0 ft, screen opening from 10.1 to 14.6 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 496.3 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.30 ft above land surface datum.

REMARKS.--Observation well drilled April 10, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-12. Record are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.63 ft below land-surface datum, August 22, 2002; lowest, 8.00 ft below land-surface datum, April 15-19, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 5.63 ft below land-surface datum, August 22; lowest, 8.00 ft below land-surface datum, April 15-19.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.44	7.75	7.79	7.83	7.88	7.98	7.18	6.58	6.48	6.01	6.01
2	---	7.41	7.78	7.79	7.82	7.88	7.98	7.06	6.57	6.42	6.03	6.06
3	---	7.38	7.79	7.80	7.82	7.88	7.99	6.95	6.56	6.32	6.05	6.10
4	---	7.37	7.82	7.81	7.81	7.88	7.99	6.86	6.55	6.29	6.08	6.12
5	---	7.34	7.83	7.80	7.83	7.88	7.98	6.80	6.56	6.13	6.12	6.14
6	---	7.34	7.83	7.80	7.83	7.88	7.99	6.77	6.59	6.07	6.16	6.10
7	---	7.34	7.84	7.81	7.83	7.88	7.99	6.76	6.61	6.05	6.17	6.11
8	---	7.35	7.84	7.82	7.84	7.88	7.98	6.77	6.61	6.04	6.16	6.16
9	---	7.39	7.84	7.82	7.83	7.89	7.98	6.78	6.61	6.03	6.15	6.19
10	---	7.43	7.83	7.82	7.82	7.88	7.98	6.80	6.62	6.02	6.09	6.21
11	---	7.48	7.82	7.83	7.83	7.88	7.98	6.84	6.60	6.03	6.09	6.23
12	---	7.51	7.82	7.83	7.82	7.89	7.99	6.86	6.59	6.05	6.11	6.26
13	7.39	7.54	7.82	7.82	7.82	7.90	7.99	6.81	6.55	6.08	6.13	6.29
14	7.41	7.56	7.80	7.82	7.82	7.91	7.99	6.79	6.51	6.10	6.16	6.33
15	7.44	7.56	7.79	7.83	7.83	7.92	7.99	6.77	6.48	6.13	6.17	6.36
16	7.47	7.57	7.78	7.82	7.83	7.92	7.99	6.75	6.47	6.14	5.86	6.41
17	7.50	7.56	7.78	7.81	7.82	7.93	7.99	6.74	6.47	6.14	5.74	6.44
18	7.55	7.56	7.78	7.80	7.82	7.94	8.00	6.72	6.49	6.14	5.70	6.47
19	7.59	7.57	7.78	7.79	7.82	7.95	7.99	6.70	6.48	6.14	5.69	6.50
20	7.63	7.57	7.76	7.78	7.84	7.96	7.98	6.66	6.46	6.11	5.69	6.55
21	7.66	7.58	7.77	7.77	7.85	7.96	7.97	6.63	6.45	6.10	5.67	6.58
22	7.70	7.59	7.78	7.75	7.85	7.96	7.96	6.59	6.45	6.10	5.63	6.60
23	7.74	7.61	7.79	7.75	7.85	7.97	7.95	6.56	6.45	6.09	5.64	6.63
24	7.77	7.63	7.79	7.77	7.86	7.97	7.94	6.52	6.45	6.09	5.66	6.67
25	7.81	7.65	7.79	7.80	7.86	7.97	7.93	6.48	6.44	5.97	5.67	6.70
26	7.84	7.66	7.79	7.81	7.86	7.97	7.88	6.47	6.44	5.96	5.70	6.73
27	7.79	7.67	7.79	7.82	7.87	7.97	7.79	6.47	6.44	5.92	5.75	6.74
28	7.70	7.69	7.80	7.83	7.87	7.98	7.66	6.46	6.44	5.92	5.80	6.75
29	7.62	7.71	7.79	7.84	---	7.98	7.48	6.46	6.46	5.92	5.87	6.79
30	7.55	7.73	7.79	7.84	---	7.98	7.31	6.49	6.47	5.95	5.90	6.77
31	7.48	---	7.80	7.84	---	7.98	---	6.54	---	5.97	5.95	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644403147112901. Local number, FD00200317CDDD1005.

LOCATION.--Lat 64°44'03", Long 147°11'29", in SE1/4 SE1/4 SW1/4 sec. 17, T.2 S., R.3 E., (Fairbanks C-1 NE quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 2.2 mi east of gate at gravel road from U.S. Army Corps of Engineers office, then just beyond powerlines north of gravel road, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. pvc casing, depth 20.0 ft, screen opening from 14.9 to 19.9 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 5, 2001 to current year.

DATUM.--Elevation of land-surface datum is 501.5 ft. above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.57 ft. above land surface datum.

REMARKS.--Observation well drilled September 8, 1994 by the U.S. Army Corps of Engineers and designated as USAP-2. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.09 ft below land-surface datum, September 30, 2002; lowest, 11.08 ft below land-surface datum, May 1, 2 and 17, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 5.09 ft below land-surface datum, September 30; lowest, 11.08 ft below land-surface datum, May 1, 2 and 17.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.89	9.45	9.95	10.24	10.45	10.72	10.89	10.79	10.67	9.75	7.92
2	---	8.95	9.48	9.95	10.25	10.47	10.71	10.80	10.78	10.55	9.75	7.88
3	---	8.95	9.48	10.01	10.22	10.58	10.72	10.80	10.76	10.47	9.73	7.73
4	---	9.02	9.53	9.98	10.22	10.50	10.67	10.91	10.73	10.65	9.69	7.66
5	8.88	9.03	9.51	9.89	10.32	10.49	10.66	10.85	10.81	10.61	9.68	7.58
6	8.88	9.04	9.56	9.96	10.31	10.50	10.73	10.87	10.82	10.47	9.73	7.37
7	8.83	9.04	9.59	10.00	10.31	10.50	10.69	10.86	10.77	10.37	9.73	7.27
8	8.77	9.04	9.59	10.01	10.34	10.53	10.69	10.78	10.67	10.29	9.76	7.27
9	8.75	9.08	9.61	10.02	10.24	10.50	10.72	10.86	10.72	10.30	9.77	7.31
10	8.77	9.08	9.65	10.09	10.26	10.48	10.75	10.93	10.77	10.16	9.64	7.24
11	8.76	9.11	9.63	10.10	10.30	10.52	10.79	10.94	10.83	10.18	9.65	7.16
12	8.78	9.12	9.66	10.11	10.29	10.58	10.72	10.89	10.81	10.15	9.64	7.09
13	8.79	9.16	9.71	10.09	10.24	10.58	10.73	10.83	10.74	10.03	9.78	7.08
14	8.79	9.16	9.71	10.07	10.32	10.61	10.76	10.86	10.70	10.09	9.68	7.01
15	8.75	9.18	9.72	10.12	10.33	10.56	10.82	10.88	10.65	10.18	9.61	7.05
16	8.77	9.24	9.76	10.07	10.35	10.55	10.75	10.99	10.63	10.09	9.55	7.06
17	8.72	9.20	9.77	10.04	10.34	10.60	10.72	10.99	10.65	10.06	9.29	6.86
18	8.78	9.22	9.78	10.07	10.40	10.63	10.78	10.89	10.64	10.07	8.93	6.72
19	8.81	9.25	9.77	10.11	10.43	10.60	10.75	10.86	10.67	10.09	8.74	6.78
20	8.78	9.25	9.73	10.19	10.48	10.62	10.78	10.82	10.68	10.08	8.58	6.72
21	8.78	9.29	9.82	10.19	10.42	10.57	10.84	10.83	10.64	9.99	8.60	6.58
22	8.84	9.32	9.79	10.14	10.43	10.57	10.87	10.89	10.59	9.98	8.50	6.46
23	8.85	9.36	9.86	10.17	10.46	10.60	10.82	10.85	10.60	9.91	8.48	6.44
24	8.90	9.38	9.88	10.24	10.40	10.59	10.83	10.80	10.62	9.95	8.32	6.25
25	8.90	9.38	9.87	10.21	10.43	10.59	10.81	10.75	10.63	9.97	8.21	6.19
26	8.86	9.40	9.89	10.18	10.43	10.65	10.79	10.79	10.66	9.88	8.10	5.97
27	8.87	9.40	9.90	10.18	10.36	10.69	10.89	10.80	10.66	9.89	7.94	5.77
28	8.87	9.40	9.94	10.20	10.34	10.72	10.80	10.75	10.63	9.98	7.93	5.78
29	8.86	9.42	9.94	10.19	---	10.71	10.86	10.80	10.66	9.88	7.94	5.55
30	8.91	9.43	9.95	10.23	---	10.70	10.67	10.91	10.71	9.83	7.85	5.09
31	8.89	---	9.95	10.23	---	10.70	---	10.86	---	9.81	7.87	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644408147162001. Local number, FD00200214DDDA1003.

LOCATION.--Lat 64°44'08", Long 147°16'20", in SE1/4 SE1/4 SE1/4 sec. 14, T.2 S., R.2 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located 10 ft off shoulder of northeast corner of Anton Road and Seavy Road intersection, North Pole.
Owner: U.S. Army Corps of Engineers.
AQUIFER.--Chena Alluvium of Quaternary age.
WELL CHARACTERISTICS.--Diameter 2-in. pvc casing, depth 15.2 ft, screen opening from 10.2 to 15.2 ft.
INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 5, 2001 to current year.
DATUM.--Elevation of land-surface datum is 499.7 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.62 ft above land surface datum.
REMARKS.--Observation well drilled June 7, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-10. Records are fair due to unquantified movement of the measuring point.
PERIOD OF RECORD.--July 2001 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.88 ft below land-surface datum, August 28, 2002; lowest, 10.95 ft below land-surface datum, March 31, April 1-4, 6-7, 16, 18 and 22-23, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level measured, 8.88 ft below land-surface datum, August 28; lowest, 10.95 ft below land-surface datum, March 31, April 1-4, 6-7, 16, 18 and 22-23.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.39	10.61	10.82	10.85	10.88	10.95	10.36	9.70	9.75	9.30	8.94
2	---	10.41	10.62	10.82	10.84	10.88	10.95	10.31	9.70	9.74	9.31	8.96
3	---	10.41	10.63	10.82	10.84	10.90	10.95	10.25	9.69	9.69	9.31	8.97
4	---	10.41	10.65	10.82	10.84	10.91	10.94	10.23	9.69	9.67	9.32	8.97
5	9.91	10.41	10.66	10.80	10.84	10.90	10.93	10.18	9.69	9.64	9.33	8.97
6	9.93	10.40	10.67	10.80	10.85	10.90	10.93	10.15	9.70	9.58	9.34	8.96
7	9.95	10.39	10.69	10.81	10.85	10.89	10.94	10.11	9.71	9.54	9.36	8.96
8	9.96	10.39	10.70	10.81	10.85	10.90	10.93	10.08	9.71	9.50	9.37	8.97
9	9.96	10.39	10.71	10.81	10.85	10.89	10.92	10.06	9.72	9.47	9.38	8.99
10	9.99	10.40	10.71	10.82	10.84	10.88	10.92	10.03	9.73	9.44	9.36	9.02
11	10.00	10.42	10.72	10.83	10.84	10.88	10.93	10.02	9.75	9.43	9.35	9.03
12	10.03	10.42	10.73	10.84	10.84	10.89	10.93	10.00	9.76	9.41	9.35	9.05
13	10.07	10.44	10.74	10.84	10.84	10.89	10.93	9.98	9.75	9.40	9.36	9.07
14	10.09	10.45	10.75	10.84	10.84	10.90	10.93	9.96	9.74	9.40	9.38	9.08
15	10.11	10.45	10.76	10.84	10.85	10.90	10.93	9.94	9.73	9.40	9.38	9.10
16	10.12	10.46	10.76	10.84	10.85	10.90	10.94	9.92	9.73	9.40	9.32	9.14
17	10.13	10.47	10.77	10.84	10.85	10.90	10.94	9.91	9.72	9.40	9.26	9.17
18	10.15	10.47	10.77	10.84	10.85	10.91	10.93	9.89	9.73	9.41	9.25	9.18
19	10.19	10.49	10.78	10.83	10.86	10.92	10.94	9.88	9.73	9.41	9.13	9.21
20	10.21	10.49	10.77	10.83	10.87	10.92	10.93	9.85	9.72	9.41	9.09	9.24
21	10.22	10.50	10.77	10.83	10.87	10.93	10.93	9.83	9.71	9.40	9.06	9.27
22	10.25	10.51	10.78	10.82	10.87	10.91	10.94	9.82	9.70	9.40	9.02	9.28
23	10.28	10.53	10.79	10.81	10.87	10.91	10.94	9.79	9.70	9.39	8.99	9.29
24	10.31	10.54	10.80	10.82	10.87	10.91	10.93	9.77	9.71	9.39	8.96	9.32
25	10.34	10.55	10.80	10.84	10.87	10.90	10.92	9.75	9.71	9.38	8.94	9.33
26	10.36	10.57	10.80	10.83	10.87	10.91	10.88	9.73	9.71	9.36	8.92	9.35
27	10.38	10.58	10.80	10.83	10.87	10.91	10.75	9.72	9.71	9.35	8.91	9.36
28	10.40	10.58	10.82	10.84	10.87	10.92	10.75	9.70	9.72	9.34	8.88	9.38
29	10.41	10.59	10.82	10.84	---	10.93	10.60	9.70	9.72	9.33	8.92	9.41
30	10.43	10.59	10.82	10.84	---	10.94	10.47	9.70	9.73	9.31	8.91	9.42
31	10.41	---	10.82	10.85	---	10.94	---	9.70	---	9.31	8.92	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644423147124601. Local number, FD00200318DABC1006.

LOCATION.--Lat 64°44'23", Long 147°12'46", in NW^1/4 NE^1/4 SE^1/4 sec. 18, T.2 S., R.3 E., (Fairbanks C-1 NE quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located in Chena River Recreation Area, North Pole. From recreation area entrance station well is approximately 0.8 mi southeast on dirt road from levee followed by 0.4 mi northeast on intersecting dirt road.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 20.0 ft, screen opening from 14.9 to 19.9 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 5, 2001 to current year.

DATUM.--Elevation of land-surface datum is 499.6 ft. above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 6.77 ft. above land surface datum.

REMARKS.--Observation well drilled September 9, 1994 by the U.S. Army Corps of Engineers and designated as USAP-3. Records are fair due to unquantified movement of the measuring point. Missing daily values Oct. 5 and 9 due to equipment malfunction.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.36 ft below land-surface datum, September 26-28, 2002; lowest, 11.37 ft below land-surface datum, April 22-28, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 8.36 ft below land-surface datum, September 26-28; lowest, 11.37 ft below land-surface datum, April 22-28.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.14	10.50	10.87	11.11	11.22	11.31	11.13	10.09	9.96	9.59	8.83
2	---	10.16	10.52	10.87	11.11	11.22	11.32	11.02	10.08	9.95	9.58	8.81
3	---	10.18	10.52	10.88	11.11	11.23	11.32	10.95	10.07	9.95	9.57	8.77
4	---	10.20	10.54	10.90	11.11	11.24	11.32	10.88	10.06	9.95	9.56	8.74
5	---	10.22	10.55	10.90	11.13	11.24	11.32	10.81	10.05	9.94	9.55	8.71
6	9.77	10.23	10.56	10.90	11.14	11.23	11.32	10.76	10.04	9.93	9.54	8.67
7	9.81	10.24	10.57	10.91	11.14	11.24	11.32	10.70	10.03	9.91	9.54	8.65
8	9.81	10.24	10.58	10.93	11.15	11.24	11.33	10.64	10.02	9.89	9.54	8.63
9	---	10.25	10.59	10.94	11.14	11.25	11.33	10.61	10.01	9.88	9.54	8.60
10	9.82	10.26	10.60	10.95	11.14	11.25	11.33	10.58	10.01	9.86	9.52	8.57
11	9.85	10.28	10.62	10.97	11.15	11.25	11.33	10.54	10.01	9.85	9.52	8.55
12	9.88	10.28	10.62	10.99	11.15	11.25	11.33	10.52	10.01	9.83	9.51	8.52
13	9.91	10.30	10.64	11.00	11.15	11.25	11.34	10.49	10.00	9.81	9.52	8.49
14	9.92	10.31	10.66	11.00	11.16	11.26	11.34	10.46	9.99	9.79	9.53	8.47
15	9.93	10.31	10.66	11.01	11.17	11.26	11.34	10.44	9.99	9.78	9.52	8.46
16	9.94	10.33	10.67	11.02	11.17	11.26	11.34	10.42	9.98	9.76	9.51	8.45
17	9.94	10.35	10.69	11.02	11.17	11.27	11.34	10.40	9.97	9.74	9.49	8.43
18	9.95	10.35	10.70	11.03	11.17	11.27	11.35	10.37	9.97	9.73	9.45	8.42
19	9.99	10.37	10.71	11.04	11.19	11.28	11.35	10.34	9.96	9.72	9.40	8.42
20	9.99	10.37	10.71	11.05	11.20	11.28	11.35	10.31	9.96	9.71	9.34	8.42
21	9.99	10.38	10.72	11.05	11.20	11.28	11.35	10.29	9.95	9.70	9.30	8.40
22	10.01	10.40	10.74	11.05	11.20	11.29	11.36	10.28	9.95	9.69	9.24	8.39
23	10.04	10.43	10.76	11.05	11.20	11.29	11.36	10.26	9.95	9.67	9.20	8.39
24	10.06	10.45	10.77	11.07	11.21	11.29	11.36	10.23	9.94	9.67	9.15	8.38
25	10.08	10.46	10.78	11.09	11.21	11.29	11.36	10.20	9.94	9.66	9.10	8.37
26	10.08	10.47	10.79	11.09	11.22	11.29	11.36	10.18	9.94	9.64	9.04	8.36
27	10.08	10.48	10.80	11.09	11.22	11.29	11.37	10.16	9.94	9.64	8.99	8.36
28	10.10	10.48	10.82	11.09	11.22	11.30	11.35	10.14	9.94	9.64	8.96	8.36
29	10.10	10.48	10.83	11.09	---	11.30	11.31	10.13	9.94	9.63	8.92	8.38
30	10.13	10.49	10.85	11.10	---	11.31	11.22	10.13	9.94	9.62	8.88	8.37
31	10.13	---	10.86	11.11	---	11.31	---	10.11	---	9.61	8.85	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644435147141901. Local number, FD00200213ADAD1007.

LOCATION.--Lat 64°44'35", Long 147°14'19", in NE1/4 SE1/4 NE1/4 sec. 13, T.2 S., R.2 E., (Fairbanks C-1 NE quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located south on Gordon Road from the intersection with Lyle Road, south of shoulder where road veers west, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 19.15 ft, screen opening from 14.2 to 18.7 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 500.5 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.45 ft above land surface datum.

REMARKS.--Observation well drilled April 6, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-8S. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.52 ft below land-surface datum, September 13-15, 2002; lowest, 13.05 ft below land-surface datum, April 24, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 10.52 ft below land-surface datum, September 13-15; lowest, 13.05 ft below land-surface datum, April 24.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	12.08	12.38	12.70	12.85	12.93	13.01	12.72	11.70	11.68	11.34	10.73
2	---	12.09	12.39	12.70	12.86	12.94	13.01	12.62	11.69	11.69	11.33	10.71
3	---	12.11	12.40	12.70	12.85	12.95	13.01	12.58	11.69	11.68	11.32	10.68
4	---	12.12	12.42	12.72	12.85	12.95	13.01	12.52	11.67	11.68	11.32	10.66
5	---	12.15	12.43	12.70	12.86	12.95	13.01	12.46	11.67	11.66	11.31	10.64
6	---	12.15	12.44	12.70	12.87	12.95	13.01	12.42	11.67	11.63	11.31	10.61
7	---	12.16	12.45	12.71	12.87	12.95	13.01	12.37	11.66	11.62	11.31	10.60
8	---	12.16	12.46	12.73	12.88	12.95	13.01	12.33	11.65	11.60	11.31	10.58
9	---	12.17	12.47	12.73	12.87	12.95	13.02	12.30	11.65	11.58	11.32	10.58
10	---	12.18	12.48	12.74	12.87	12.95	13.02	12.27	11.65	11.55	11.32	10.56
11	---	12.19	12.49	12.76	12.88	12.95	13.02	12.24	11.66	11.54	11.31	10.55
12	---	12.20	12.49	12.77	12.88	12.96	13.02	12.20	11.66	11.51	11.30	10.53
13	11.84	12.21	12.51	12.78	12.88	12.96	13.02	12.17	11.67	11.49	11.32	10.52
14	11.85	12.21	12.53	12.78	12.88	12.97	13.02	12.14	11.66	11.48	11.34	10.52
15	11.87	12.22	12.53	12.79	12.89	12.97	13.02	12.11	11.65	11.47	11.34	10.52
16	11.87	12.22	12.54	12.79	12.89	12.97	13.03	12.08	11.65	11.45	11.33	10.53
17	11.87	12.24	12.55	12.79	12.90	12.97	13.02	12.05	11.65	11.44	11.29	10.53
18	11.89	12.24	12.57	12.79	12.90	12.97	13.03	12.02	11.64	11.43	11.26	10.53
19	11.92	12.26	12.58	12.80	12.91	12.98	13.03	11.99	11.65	11.42	11.24	10.55
20	11.93	12.26	12.57	12.81	12.91	12.98	13.03	11.95	11.65	11.42	11.20	10.58
21	11.93	12.27	12.58	12.82	12.92	12.98	13.03	11.92	11.65	11.41	11.15	10.59
22	11.95	12.28	12.59	12.82	12.92	12.98	13.04	11.90	11.64	11.40	11.11	10.59
23	11.97	12.30	12.62	12.82	12.92	12.98	13.04	11.87	11.64	11.39	11.07	10.59
24	11.99	12.33	12.63	12.83	12.92	12.98	13.04	11.84	11.64	11.39	11.02	10.59
25	12.01	12.33	12.64	12.84	12.92	12.98	13.04	11.81	11.64	11.38	10.98	10.60
26	12.02	12.35	12.64	12.84	12.92	12.99	13.03	11.79	11.65	11.37	10.93	10.60
27	12.02	12.36	12.65	12.84	12.92	12.99	13.02	11.77	11.65	11.37	10.88	10.61
28	12.04	12.36	12.67	12.84	12.92	13.00	12.98	11.75	11.66	11.37	10.85	10.63
29	12.04	12.36	12.68	12.84	---	13.00	12.92	11.74	11.66	11.36	10.81	10.67
30	12.06	12.37	12.69	12.84	---	13.00	12.80	11.73	11.67	11.36	10.78	10.68
31	12.07	---	12.70	12.85	---	13.01	---	11.72	---	11.35	10.75	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644435147141902. Local number, FD00200213ADAD2007.

LOCATION.--Lat 64°44'35", Long 147°14'19", in NE1/4 SE1/4 NE1/4 sec. 13, T.2 S., R.2 E., (Fairbanks C-1 NE quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located 0.3 miles south on Gordon Road from the intersection with Lyle Road, south of shoulder where road veers west, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 64.39 ft, screen opening from 59.5 to 64.0 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 500.8 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.26 ft above land surface datum.

REMARKS.--Observation well drilled April 6, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-8D. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.83 ft below land-surface datum, September 14, 2002; lowest, 13.36 ft below land-surface datum, April 22-24, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 10.83 ft below land-surface datum, September 14; lowest, 13.36 ft below land-surface datum, April 22-24.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	12.44	12.72	13.02	13.17	13.24	13.32	13.03	12.01	12.00	11.66	11.05
2	---	12.45	12.73	13.02	13.17	13.25	13.32	12.94	12.00	12.00	11.65	11.03
3	---	12.45	12.74	13.03	13.17	13.26	13.32	12.89	12.00	11.99	11.64	11.00
4	---	12.46	12.76	13.05	13.17	13.26	13.32	12.83	11.98	11.99	11.63	10.98
5	---	12.48	12.76	13.04	13.19	13.26	13.32	12.77	11.98	11.98	11.63	10.95
6	---	12.49	12.77	13.05	13.19	13.26	13.33	12.73	11.98	11.95	11.63	10.93
7	---	12.50	12.78	13.05	13.19	13.26	13.33	12.69	11.98	11.93	11.63	10.91
8	---	12.50	12.79	13.07	13.20	13.26	13.33	12.65	11.97	11.91	11.63	10.90
9	---	12.51	12.80	13.07	13.19	13.26	13.33	12.61	11.97	11.89	11.64	10.89
10	---	12.51	12.82	13.08	13.19	13.26	13.33	12.59	11.97	11.87	11.64	10.88
11	---	12.52	12.82	13.09	13.20	13.26	13.33	12.55	11.98	11.85	11.63	10.87
12	---	12.53	12.83	13.10	13.20	13.27	13.33	12.51	11.98	11.83	11.62	10.85
13	12.16	12.54	12.84	13.10	13.19	13.27	13.33	12.48	11.98	11.80	11.64	10.84
14	12.18	12.55	12.86	13.10	13.20	13.28	13.33	12.45	11.98	11.79	11.66	10.83
15	12.19	12.56	12.86	13.11	13.21	13.28	13.34	12.42	11.97	11.78	11.65	10.84
16	12.20	12.57	12.87	13.12	13.21	13.28	13.34	12.39	11.97	11.77	11.64	10.85
17	12.21	12.58	12.89	13.11	13.21	13.29	13.34	12.36	11.96	11.75	11.61	10.85
18	12.23	12.58	12.90	13.11	13.22	13.29	13.34	12.32	11.96	11.75	11.59	10.85
19	12.25	12.60	12.91	13.13	13.22	13.29	13.34	12.30	11.96	11.74	11.56	10.87
20	12.26	12.61	12.91	13.14	13.23	13.29	13.34	12.26	11.97	11.73	11.51	10.90
21	12.27	12.62	12.92	13.14	13.23	13.29	13.35	12.23	11.96	11.73	11.47	10.91
22	12.28	12.63	12.93	13.14	13.23	13.29	13.35	12.20	11.96	11.72	11.43	10.91
23	12.30	12.64	12.95	13.14	13.23	13.29	13.35	12.17	11.96	11.71	11.38	10.91
24	12.33	12.66	12.96	13.15	13.23	13.30	13.35	12.15	11.96	11.71	11.34	10.92
25	12.35	12.67	12.96	13.16	13.24	13.30	13.35	12.12	11.96	11.70	11.29	10.92
26	12.36	12.68	12.97	13.15	13.23	13.30	13.34	12.10	11.96	11.69	11.25	10.91
27	12.37	12.69	12.98	13.16	13.24	13.30	13.33	12.08	11.97	11.69	11.20	10.93
28	12.38	12.69	13.00	13.16	13.23	13.31	13.29	12.06	11.97	11.69	11.16	10.95
29	12.39	12.70	13.00	13.16	---	13.31	13.23	12.05	11.98	11.68	11.13	10.99
30	12.41	12.71	13.01	13.16	---	13.32	13.11	12.04	11.98	11.67	11.09	10.99
31	12.43	---	13.02	13.17	---	13.32	---	12.03	---	11.67	11.07	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644435147172001. Local number, FD00200214ACBC1002.

LOCATION.--Lat 64°44'35", Long 147°17'20", in NW1/4 SW1/4 NE1/4 sec. 14, T.2 S., R.2 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located 25 ft off shoulder of southeast corner of Newby Road and Newby Park intersection, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 16.9 ft, screen opening from 11.9 to 16.4 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 12, 2001 to current year.

DATUM.--Elevation of land-surface datum is 494.9 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of inner casing 2.53 ft above land surface datum.

REMARKS.--Observation well drilled April 8, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-9. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.96 ft below land-surface datum, August 26, 2002; lowest, 8.72 ft below land-surface datum, April 15-19, 22, 23, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 6.96 ft below land-surface datum, August 26; lowest, 8.72 ft below land-surface datum, April 15-19, 22, 23.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.33	8.47	8.59	8.61	8.64	8.71	8.02	7.68	7.73	7.39	7.09
2	---	8.33	8.48	8.59	8.62	8.64	8.71	7.93	7.66	7.70	7.39	7.09
3	---	8.32	8.49	8.59	8.61	8.64	8.71	7.90	7.66	7.63	7.40	7.08
4	---	8.32	8.50	8.60	8.61	8.65	8.71	7.92	7.65	7.61	7.41	7.07
5	---	8.30	8.51	8.58	8.61	8.65	8.70	7.94	7.66	7.56	7.41	7.07
6	---	8.30	8.51	8.58	8.62	8.64	8.71	7.92	7.66	7.50	7.43	7.03
7	---	8.29	8.52	8.59	8.62	8.64	8.71	7.90	7.66	7.46	7.44	7.03
8	---	8.28	8.53	8.60	8.62	8.64	8.71	7.88	7.67	7.43	7.45	7.05
9	---	8.28	8.53	8.60	8.61	8.64	8.70	7.86	7.76	7.41	7.45	7.21
10	---	8.29	8.53	8.61	8.61	8.63	8.70	7.85	7.79	7.39	7.42	7.29
11	---	8.30	8.54	8.62	8.61	8.63	8.71	7.85	7.80	7.37	7.42	7.34
12	8.03	8.31	8.54	8.62	8.61	8.64	8.71	7.84	7.80	7.36	7.42	7.36
13	8.05	8.32	8.55	8.62	8.61	8.65	8.71	7.83	7.80	7.35	7.43	7.37
14	8.07	8.33	8.55	8.62	8.61	8.65	8.71	7.82	7.79	7.35	7.45	7.39
15	8.09	8.34	8.55	8.63	8.62	8.66	8.71	7.80	7.77	7.36	7.45	7.40
16	8.10	8.35	8.56	8.62	8.62	8.65	8.72	7.79	7.76	7.40	7.35	7.44
17	8.12	8.36	8.56	8.61	8.61	8.66	8.71	7.78	7.75	7.44	7.25	7.45
18	8.14	8.36	8.56	8.61	8.61	8.66	8.71	7.77	7.76	7.44	7.20	7.45
19	8.17	8.37	8.56	8.61	8.62	8.67	8.71	7.76	7.74	7.43	7.16	7.47
20	8.19	8.37	8.55	8.61	8.62	8.67	8.71	7.74	7.72	7.42	7.13	7.50
21	8.20	8.37	8.55	8.61	8.63	8.67	8.70	7.72	7.71	7.41	7.09	7.51
22	8.22	8.38	8.56	8.59	8.63	8.67	8.71	7.71	7.71	7.39	7.04	7.52
23	8.25	8.40	8.57	8.59	8.63	8.67	8.71	7.69	7.75	7.40	7.02	7.53
24	8.27	8.41	8.58	8.59	8.63	8.67	8.70	7.67	7.75	7.40	6.99	7.55
25	8.29	8.42	8.58	8.61	8.63	8.67	8.70	7.66	7.75	7.35	6.97	7.56
26	8.32	8.43	8.58	8.60	8.63	8.67	8.65	7.64	7.76	7.34	6.96	7.57
27	8.33	8.44	8.58	8.60	8.63	8.67	8.56	7.63	7.75	7.35	7.03	7.60
28	8.35	8.44	8.59	8.61	8.63	8.68	8.44	7.68	7.74	7.41	7.08	7.62
29	8.35	8.45	8.59	8.61	---	8.70	8.27	7.69	7.73	7.40	7.08	7.65
30	8.35	8.46	8.59	8.61	---	8.70	8.14	7.68	7.73	7.40	7.08	7.67
31	8.34	---	8.59	8.62	---	8.70	---	7.69	---	7.40	7.09	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644444147143901. Local number, FD00200213AACD1005.

LOCATION.--Lat 64°44'44", Long 147°14'39", in SW1/4 NE1/4 NE1/4 sec. 13, T.2 S., R.2 E., (Fairbanks C-1 NE quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 0.2 mi south on Silver Street from the intersection with Lyle Road, then 15 ft south of road, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 17.15 ft, screen opening from 12.4 to 16.9 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 498.4 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 2.42 ft above land surface datum.

REMARKS.--Observation well drilled April 8, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-7. Records are fair due to unquantified movement of the measuring point. Missing daily values Jan. 9-23 and Jan. 27 to Mar. 15 due to equipment malfunction.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.01 ft below land-surface datum, September 13-15, 2002; lowest, 11.48 ft below land-surface datum, April 22-25, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 9.01 ft below land-surface datum, September 13-15; lowest, 11.48 ft below land-surface datum, April 22-25.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.56	10.86	11.16	---	---	11.44	11.11	10.14	10.13	9.78	9.19
2	---	10.57	10.87	11.17	---	---	11.45	11.04	10.13	10.14	9.78	9.17
3	---	10.59	10.88	11.17	---	---	11.45	10.98	10.12	10.12	9.77	9.15
4	---	10.60	10.90	11.18	---	---	11.45	10.93	10.11	10.11	9.76	9.13
5	---	10.63	10.91	11.18	---	---	11.45	10.89	10.11	10.10	9.76	9.11
6	---	10.64	10.91	11.19	---	---	11.45	10.84	10.11	10.07	9.76	9.08
7	---	10.65	10.93	11.19	---	---	11.45	10.80	10.10	10.05	9.76	9.07
8	---	10.65	10.94	11.20	---	---	11.45	10.76	10.10	10.02	9.77	9.06
9	---	10.65	10.95	---	---	---	11.45	10.73	10.09	10.00	9.78	9.05
10	---	10.66	10.96	---	---	---	11.45	10.70	10.10	9.97	9.77	9.04
11	---	10.67	10.97	---	---	---	11.46	10.67	10.10	9.96	9.77	9.03
12	---	10.67	10.98	---	---	---	11.46	10.63	10.11	9.94	9.76	9.02
13	10.33	10.69	10.99	---	---	---	11.46	10.60	10.11	9.91	9.77	9.01
14	10.35	10.69	11.00	---	---	---	11.46	10.56	10.11	9.91	9.80	9.01
15	10.37	10.70	11.00	---	---	---	11.46	10.53	10.10	9.90	9.79	9.01
16	10.37	10.71	11.02	---	---	11.41	11.46	10.51	10.09	9.88	9.78	9.02
17	10.37	10.73	11.03	---	---	11.41	11.46	10.48	10.09	9.87	9.74	9.03
18	10.38	10.73	11.04	---	---	11.41	11.46	10.45	10.09	9.87	9.71	9.03
19	10.40	10.75	11.05	---	---	11.42	11.46	10.42	10.09	9.86	9.67	9.04
20	10.42	10.75	11.05	---	---	11.42	11.46	10.39	10.09	9.86	9.62	9.08
21	10.42	10.76	11.05	---	---	11.42	11.47	10.36	10.08	9.85	9.57	9.09
22	10.43	10.77	11.07	---	---	11.42	11.47	10.33	10.08	9.84	9.53	9.09
23	10.46	10.79	11.08	---	---	11.42	11.47	10.30	10.08	9.84	9.48	9.09
24	10.48	10.80	11.10	11.27	---	11.42	11.47	10.28	10.08	9.83	9.44	9.10
25	10.50	10.81	11.10	11.29	---	11.42	11.47	10.25	10.08	9.83	9.40	9.10
26	10.51	10.82	11.11	11.29	---	11.42	11.46	10.23	10.09	9.82	9.36	9.10
27	10.52	10.83	11.12	---	---	11.43	11.44	10.21	10.09	9.82	9.31	9.11
28	10.53	10.84	11.13	---	---	11.43	11.40	10.19	10.10	9.81	9.28	9.13
29	10.53	10.84	11.14	---	---	11.44	11.31	10.18	10.10	9.81	9.25	9.17
30	10.54	10.85	11.15	---	---	11.44	11.20	10.16	10.11	9.80	9.23	9.17
31	10.55	---	11.16	---	---	11.44	---	10.15	---	9.79	9.20	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644446147120901. Local number, FD00200317BBCA1001.

LOCATION.--Lat 64°44'46", Long 147°12'09", in SW1/4 NW1/4 NW1/4 sec. 17, T.2 S., R.3 E., (Fairbanks C-1 NE quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located in Chena River Recreation Area, North Pole. From recreation area entrance station well is approximately 0.8 mi southeast on dirt road from levee followed by 0.8 mi northeast on intersecting dirt road.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 15.2 ft, screen opening from 10.1 to 15.1 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 05, 2001 to current year.

DATUM.--Elevation of land-surface datum is 495.7 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 6.30 ft above land surface datum.

REMARKS.--Observation well drilled September 9, 1994 by the U.S. Army Corps of Engineers and designated as USAP-4. Records are fair due to unquantified movement of the measuring point. Well is in low lying area near drainage way. Water levels in well rise during flooding. Water level rose 5 ft from August 19-23, 2002 during a period of heavy precipitation.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.31 ft below land-surface datum, August 24-25, 2002; lowest, 11.81 ft below land-surface datum, April 27-28, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 3.31 ft below land-surface datum, August 24-25; lowest, 11.81 ft below land-surface datum, April 27-28.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.83	10.25	10.70	11.05	11.35	11.64	11.70	9.46	9.45	8.60	3.73
2	---	9.85	10.28	10.70	11.07	11.36	11.65	11.59	9.45	9.43	8.58	3.81
3	---	9.88	10.28	10.72	11.08	11.38	11.66	11.52	9.44	9.42	8.57	3.85
4	---	9.90	10.30	10.74	11.08	11.40	11.67	11.41	9.43	9.41	8.55	3.85
5	9.54	9.94	10.31	10.73	11.09	11.40	11.66	11.28	9.44	9.38	8.55	3.85
6	9.56	9.94	10.31	10.74	11.11	11.40	11.66	11.16	9.46	9.32	8.56	3.58
7	9.58	9.96	10.33	10.74	11.12	11.41	11.67	11.00	9.45	9.23	8.56	3.60
8	9.57	9.96	10.35	10.77	11.14	11.42	11.67	10.83	9.43	9.14	8.58	3.72
9	9.55	9.97	10.36	10.78	11.14	11.43	11.68	10.68	9.43	9.06	8.62	3.85
10	9.56	9.98	10.38	10.80	11.14	11.43	11.68	10.53	9.44	8.98	8.59	3.93
11	9.58	10.00	10.38	10.82	11.16	11.44	11.69	10.39	9.46	8.93	8.58	3.96
12	9.59	10.01	10.39	10.84	11.17	11.45	11.70	10.25	9.47	8.88	8.58	3.97
13	9.64	10.03	10.42	10.86	11.16	11.46	11.70	10.13	9.47	8.83	8.62	4.01
14	9.64	10.03	10.44	10.86	11.17	11.48	11.71	10.02	9.46	8.81	8.66	4.04
15	9.64	10.04	10.44	10.88	11.20	11.49	11.72	9.95	9.44	8.79	8.64	4.07
16	9.64	10.06	10.45	10.90	11.20	11.50	11.73	9.91	9.42	8.78	8.61	4.17
17	9.62	10.08	10.47	10.90	11.22	11.50	11.74	9.86	9.41	8.75	8.51	4.10
18	9.65	10.08	10.49	10.90	11.22	11.51	11.74	9.80	9.41	8.74	8.38	4.06
19	9.68	10.10	10.50	10.91	11.24	11.53	11.75	9.76	9.41	8.75	8.24	4.13
20	9.68	10.11	10.50	10.93	11.26	11.53	11.76	9.70	9.41	8.75	7.32	4.26
21	9.68	10.12	10.51	10.95	11.28	11.55	11.76	9.66	9.41	8.73	4.39	4.30
22	9.70	10.13	10.53	10.96	11.28	11.55	11.78	9.63	9.40	8.73	3.46	4.31
23	9.72	10.17	10.57	10.96	11.29	11.55	11.79	9.60	9.39	8.71	3.35	4.33
24	9.75	10.19	10.58	10.97	11.31	11.56	11.79	9.56	9.39	8.71	3.31	4.35
25	9.77	10.20	10.59	11.00	11.31	11.56	11.80	9.53	9.38	8.73	3.31	4.37
26	9.77	10.22	10.61	11.00	11.31	11.57	11.80	9.50	9.40	8.69	3.37	4.35
27	9.77	10.23	10.62	11.01	11.32	11.58	11.80	9.47	9.41	8.69	3.43	4.30
28	9.79	10.23	10.65	11.02	11.33	11.60	11.80	9.44	9.40	8.68	3.47	4.31
29	9.78	10.24	10.66	11.02	---	11.61	11.79	9.44	9.41	8.67	3.55	4.39
30	9.82	10.24	10.67	11.03	---	11.62	11.73	9.46	9.43	8.64	3.58	4.22
31	9.83	---	10.68	11.05	---	11.63	---	9.47	---	8.62	3.64	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644450147131201. Local number, FD00200318ABBD1005.

LOCATION.--Lat 64°44'50", Long 147°13'12", in NW^{1}/4 NW^{1}/4 NE^{1}/4 sec. 18, T.2 S., R.3 E., (Fairbanks C-1 NE quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located in Chena River Recreation Area, North Pole. From recreation area entrance station well is approximately 0.3 mi southeast on dirt road from levee.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. pvc casing, depth 24.8 ft, screen opening from 19.7 to 24.7 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; Submersible pressure transducer/ electronic data logger from October 13, 2001 to current year.

DATUM.--Elevation of land-surface datum is 500.5 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer casing 5.80 ft above land surface datum.

REMARKS.--Observation well drilled September 9, 1994 by the U.S. Army Corps of Engineers and designated as USAP-5. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.67 ft below land-surface datum, September 18, 2002; lowest, 14.81 ft below land-surface datum, April 15-19 and 21-28, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 11.67 ft below land-surface datum, September 18; lowest, 14.81 ft below land-surface datum, April 15-19 and 21-28.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.58	13.91	14.27	14.51	14.63	14.76	14.55	13.26	13.24	12.86	12.00
2	---	13.60	13.93	14.27	14.52	14.64	14.77	14.40	13.25	13.24	12.85	11.96
3	---	13.61	13.93	14.28	14.52	14.65	14.77	14.35	13.25	13.23	12.84	11.93
4	---	13.62	13.95	14.30	14.52	14.65	14.77	14.29	13.23	13.24	12.83	11.90
5	---	13.65	13.96	14.29	14.54	14.65	14.77	14.25	13.23	13.22	12.82	11.87
6	---	13.65	13.97	14.31	14.54	14.65	14.77	14.21	13.23	13.19	12.81	11.83
7	---	13.67	13.98	14.32	14.55	14.66	14.78	14.16	13.23	13.18	12.81	11.82
8	---	13.67	13.99	14.34	14.55	14.66	14.78	14.10	13.22	13.15	12.82	11.79
9	---	13.68	14.00	14.35	14.54	14.66	14.78	14.06	13.20	13.12	12.83	11.78
10	---	13.68	14.01	14.36	14.55	14.66	14.78	14.01	13.21	13.10	12.82	11.76
11	---	13.69	14.04	14.38	14.55	14.66	14.78	13.96	13.21	13.07	12.82	11.74
12	---	13.70	14.04	14.39	14.56	14.67	14.78	13.90	13.22	13.05	12.81	11.72
13	13.41	13.72	14.06	14.40	14.55	14.68	14.78	13.85	13.22	13.03	12.83	11.70
14	13.44	13.72	14.07	14.40	14.58	14.68	14.79	13.78	13.22	13.01	12.86	11.69
15	13.44	13.73	14.08	14.41	14.58	14.68	14.80	13.74	13.21	13.00	12.86	11.68
16	13.44	13.76	14.09	14.42	14.58	14.72	14.79	13.69	13.20	12.98	12.85	11.69
17	13.44	13.77	14.10	14.42	14.59	14.73	14.79	13.64	13.20	12.97	12.81	11.68
18	13.46	13.77	14.12	14.42	14.60	14.73	14.79	13.58	13.19	12.95	12.78	11.67
19	13.48	13.79	14.13	14.44	14.60	14.74	14.79	13.54	13.19	12.95	12.75	11.69
20	13.48	13.79	14.12	14.45	14.61	14.74	14.79	13.50	13.19	12.94	12.69	11.71
21	13.48	13.81	14.13	14.46	14.61	14.74	14.80	13.48	13.19	12.94	12.65	11.70
22	13.49	13.82	14.14	14.46	14.62	14.74	14.79	13.46	13.20	12.92	12.59	11.69
23	13.51	13.84	14.17	14.47	14.62	14.73	14.80	13.43	13.19	12.91	12.53	11.69
24	13.54	13.86	14.19	14.48	14.62	14.74	14.80	13.40	13.20	12.91	12.46	11.69
25	13.55	13.87	14.19	14.49	14.63	14.74	14.80	13.37	13.19	12.90	12.38	11.69
26	13.55	13.88	14.20	14.49	14.62	14.74	14.80	13.35	13.20	12.89	12.30	11.68
27	13.54	13.89	14.21	14.49	14.62	14.75	14.80	13.33	13.21	12.89	12.23	11.69
28	13.56	13.89	14.23	14.50	14.61	14.75	14.78	13.31	13.21	12.89	12.17	11.71
29	13.56	13.90	14.24	14.50	---	14.76	14.74	13.30	13.22	12.89	12.12	11.75
30	13.58	13.91	14.25	14.51	---	14.76	14.62	13.30	13.23	12.87	12.07	11.74
31	13.58	---	14.26	14.51	---	14.76	---	13.28	---	12.87	12.02	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644454147151701. Local number, FD00200213ABBB1006.

LOCATION.--Lat 64°44'54", Long 147°15'17", in NW1/4 NW1/4 NE1/4 sec. 13, T.2 S., R.3 E., (Fairbanks C-1 NW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 30 ft southeast of intersection of Nelson Rd and Lyle Rd, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 17.9 ft, screen openings from 12.6 to 17.6 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic datalogger from October 12, 2001 to current year.

DATUM.--Elevation of land-surface datum is 495.8 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of metal ring on inner pvc casing 2.49 ft above land surface datum.

REMARKS.--Observation well drilled April 8, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-6. Record are fair due to unquantified movement of the measuring point. Daily values missing March 3-8 from equipment malfunction.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.79 ft below land-surface datum, September 12-15, 2002; lowest, 10.13 ft below land-surface datum, April 22-24, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 7.79 ft below land-surface datum, September 12-15; lowest, 10.13 ft below land-surface datum, April 22-24.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.21	9.53	9.85	9.98	10.04	10.09	9.70	8.80	8.83	8.47	7.91
2	---	9.23	9.54	9.85	9.99	10.04	10.08	9.62	8.79	8.83	8.46	7.90
3	---	9.25	9.55	9.86	9.99	---	10.09	9.57	8.79	8.80	8.46	7.88
4	---	9.26	9.57	9.87	9.98	---	10.10	9.52	8.78	8.78	8.46	7.87
5	---	9.28	9.59	9.86	9.99	---	10.09	9.48	8.78	8.75	8.45	7.85
6	---	9.28	9.59	9.86	10.00	---	10.09	9.44	8.78	8.72	8.46	7.83
7	---	9.30	9.61	9.86	10.00	---	10.10	9.41	8.78	8.69	8.47	7.82
8	---	9.30	9.62	9.88	10.01	---	10.10	9.37	8.77	8.66	8.48	7.81
9	---	9.30	9.63	9.88	10.00	10.05	10.09	9.33	8.77	8.63	8.49	7.81
10	---	9.31	9.65	9.90	10.00	10.05	10.09	9.30	8.78	8.61	8.48	7.81
11	---	9.32	9.66	9.92	10.01	10.05	10.10	9.27	8.79	8.59	8.47	7.80
12	8.94	9.33	9.66	9.92	10.01	10.05	10.10	9.23	8.79	8.57	8.47	7.79
13	8.97	9.34	9.69	9.93	10.00	10.06	10.10	9.20	8.80	8.56	8.48	7.79
14	8.99	9.35	9.70	9.93	10.00	10.06	10.10	9.17	8.79	8.55	8.51	7.79
15	9.00	9.36	9.71	9.94	10.01	10.06	10.10	9.14	8.78	8.54	8.51	7.79
16	9.01	9.37	9.72	9.94	10.01	10.06	10.11	9.12	8.78	8.53	8.47	7.82
17	9.01	9.39	9.73	9.94	10.01	10.06	10.09	9.09	8.78	8.53	8.42	7.83
18	9.02	9.39	9.74	9.94	10.01	10.06	10.11	9.06	8.78	8.53	8.37	7.83
19	9.05	9.41	9.75	9.95	10.02	10.07	10.11	9.04	8.78	8.53	8.32	7.84
20	9.06	9.41	9.75	9.95	10.02	10.07	10.11	9.01	8.78	8.52	8.27	7.87
21	9.07	9.42	9.75	9.96	10.03	10.07	10.11	8.98	8.77	8.52	8.22	7.89
22	9.09	9.42	9.77	9.95	10.03	10.07	10.11	8.95	8.77	8.52	8.18	7.89
23	9.10	9.44	9.79	9.95	10.03	10.07	10.12	8.93	8.77	8.51	8.14	7.90
24	9.12	9.47	9.80	9.96	10.03	10.07	10.12	8.90	8.78	8.51	8.09	7.91
25	9.14	9.48	9.81	9.97	10.03	10.07	10.12	8.88	8.78	8.50	8.06	7.91
26	9.16	9.49	9.81	9.97	10.03	10.07	10.10	8.86	8.79	8.49	8.03	7.92
27	9.16	9.50	9.82	9.97	10.03	10.07	10.07	8.85	8.79	8.49	7.99	7.93
28	9.17	9.51	9.84	9.98	10.03	10.08	10.01	8.82	8.81	8.49	7.97	7.94
29	9.18	9.51	9.84	9.97	---	10.08	9.91	8.82	8.81	8.48	7.96	7.97
30	9.20	9.52	9.84	9.98	---	10.09	9.80	8.82	8.82	8.48	7.94	7.97
31	9.21	---	9.85	9.98	---	10.09	---	8.81	---	8.47	7.92	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644528147131201. Local number, FD00200307ACBD1001 51660.

LOCATION.--Lat 64°45′28″, long 147°13′12″, NW1/4 SW1/4 NE1/4, sec. 7, T.2 S., R.3 E., (Fairbanks D-1) Fairbanks Meridian, Hydrologic Unit 19040506, inside Corps of Engineers Chena Lakes Project fenced compound, 120 ft west of headquarters building and 2 mi northeast of the intersection of Laurence and Nelson Roads.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 4-in., depth 31 ft, screened from 28.5 to 31 ft using a 2-in. diameter well point.

INSTRUMENTATION.--Continuous strip-chart recorder from June 1976 to May 1980. Digital recorder--1-hour punch interval, from October 1985 to April 1995. Electronic data logger used from April 1995 to present.

DATUM.--Elevation of land-surface datum is 494.7 ft above sea level (determined by levels survey). Measuring point: top of casing 2.91 ft above land-surface datum.

REMARKS.--Observation well drilled by the U.S. Army Corps of Engineers, designated as P-252. Water levels from water years 1986 through 1990 were not previously published and are available from NWIS.

PERIOD OF RECORD.--June 1976 to May 1980 and October 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.85 ft below land-surface datum, June 8-9, 1992; lowest, 13.20 ft below land-surface datum September 15, 1976.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 7.56 ft below land-surface datum, September 7-9; lowest, 11.27 ft below land-surface datum, April 25.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.74	10.07	10.36	10.72	10.95	11.10	11.21	11.01	9.25	9.44	9.03	7.59
2	9.75	10.07	10.37	10.72	10.96	11.10	11.21	10.89	9.24	9.46	9.03	7.60
3	9.78	10.09	10.38	10.73	10.97	11.11	11.21	10.76	9.25	9.46	9.03	7.61
4	9.80	10.10	10.39	10.74	10.97	11.11	11.22	10.65	9.24	9.45	9.03	7.60
5	9.80	10.11	10.41	10.75	10.98	11.12	11.22	10.56	9.24	9.43	9.03	7.59
6	9.80	10.12	10.42	10.75	10.98	11.12	11.22	10.50	9.25	9.34	9.03	7.58
7	9.81	10.13	10.43	10.76	10.99	11.12	11.22	10.43	9.27	9.27	9.05	7.56
8	9.82	10.14	10.44	10.77	11.00	11.13	11.22	10.36	9.27	9.20	9.06	7.56
9	9.82	10.14	10.45	10.78	11.00	11.13	11.22	10.30	9.27	9.15	9.08	7.56
10	9.82	10.15	10.46	10.79	11.00	11.13	11.22	10.24	9.28	9.11	9.10	7.57
11	9.83	10.16	10.48	10.81	11.00	11.13	11.22	10.18	9.29	9.09	9.11	7.58
12	9.84	10.17	10.49	10.82	11.01	11.13	11.23	10.11	9.31	9.07	9.12	7.57
13	9.87	10.18	10.50	10.83	11.01	11.14	11.23	10.02	9.33	9.05	9.12	7.58
14	9.89	10.19	10.51	10.84	11.02	11.14	11.23	9.95	9.34	9.04	9.15	7.58
15	9.90	10.19	10.52	10.85	11.02	11.15	11.23	9.89	9.34	9.04	9.18	7.58
16	9.91	10.20	10.53	10.86	11.03	11.15	11.24	9.83	9.32	9.04	9.16	7.61
17	9.92	10.21	10.54	10.87	11.03	11.15	11.24	9.76	9.32	9.04	9.06	7.64
18	9.92	10.22	10.56	10.87	11.03	11.16	11.24	9.70	9.32	9.04	8.98	7.65
19	9.94	10.24	10.56	10.88	11.05	11.16	11.25	9.63	9.32	9.04	8.89	7.67
20	9.96	10.24	10.57	10.88	11.06	11.18	11.25	9.56	9.33	9.05	8.75	7.70
21	9.96	10.25	10.58	10.89	11.06	11.18	11.25	9.50	9.34	9.05	8.54	7.74
22	9.97	10.26	10.60	10.90	11.07	11.18	11.25	9.45	9.35	9.05	8.33	7.76
23	9.99	10.28	10.61	10.90	11.07	11.18	11.25	9.40	9.35	9.05	8.10	7.77
24	10.00	10.29	10.62	10.90	11.08	11.18	11.26	9.35	9.35	9.05	7.92	7.78
25	10.02	10.31	10.63	10.91	11.08	11.18	11.26	9.31	9.36	9.06	7.80	7.80
26	10.03	10.32	10.65	10.92	11.08	11.18	11.25	9.28	9.36	9.05	7.71	7.81
27	10.03	10.33	10.66	10.93	11.09	11.19	11.24	9.26	9.37	9.05	7.66	7.81
28	10.04	10.34	10.67	10.94	11.09	11.19	11.22	9.24	9.39	9.05	7.63	7.82
29	10.05	10.34	10.68	10.94	---	11.19	11.18	9.23	9.40	9.04	7.61	7.84
30	10.05	10.35	10.69	10.95	---	11.20	11.07	9.23	9.41	9.04	7.60	7.87
31	10.06	---	10.70	10.95	---	11.20	---	9.24	---	9.03	7.59	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644531147130801. Local number, FD00200307ACBA1007.

LOCATION.--Lat 64°45'31", Long 147°13'08", NW^1/4 SW^1/4 NE^1/4 sec. 7, T.2 S., R.3 E., (Fairbanks D-1 SE) Fairbanks Meridian, Hydrologic Unit 19040506. Well located approximately 60 feet from bunker door off gravel road near U.S. Army Corps of Engineers’ facility south of Chena Lake Recreation Area entrance.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 17.6 ft, screen opening from 7.6 ft to 12.1 ft and 12.6 to 17.1 ft

INSTRUMENTATION.--Intermittent measurements by USGS personnel February 2001 to current year; submersible pressure transducer/ electronic data logger from October 5, 2001 to current year.

DATUM.--Elevation of land-surface datum is 493.9 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of outer steel casing 2.80 ft above land surface datum.

REMARKS.--Observation well drilled March 12, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-4. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--February 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.93 ft below land-surface datum, August 27-28, 2002; lowest, 10.75 ft below land-surface datum, April 23-24, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 6.93 ft below land-surface datum, August 27-28; lowest, 10.75 ft below land-surface datum, April 23-24.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.55	9.84	10.18	10.41	10.57	10.69	10.43	8.71	8.96	8.50	6.97
2	---	9.56	9.86	10.18	10.42	10.57	10.69	10.30	8.70	8.96	8.50	7.00
3	---	9.57	9.86	10.19	10.43	10.59	10.69	10.17	8.71	8.93	8.51	6.99
4	---	9.58	9.89	10.21	10.43	10.60	10.69	10.08	8.70	8.94	8.51	6.98
5	9.29	9.62	9.89	10.20	10.44	10.60	10.68	9.99	8.72	8.85	8.51	6.97
6	9.29	9.62	9.90	10.20	10.45	10.60	10.69	9.93	8.75	8.76	8.53	6.94
7	9.30	9.62	9.91	10.21	10.45	10.60	10.69	9.86	8.76	8.68	8.55	6.94
8	9.29	9.62	9.92	10.23	10.47	10.61	10.69	9.79	8.75	8.62	8.57	6.96
9	9.28	9.62	9.93	10.23	10.46	10.61	10.69	9.73	8.76	8.58	8.60	6.98
10	9.29	9.62	9.94	10.25	10.45	10.60	10.69	9.67	8.77	8.54	8.60	7.00
11	9.32	9.63	9.95	10.27	10.47	10.60	10.71	9.60	8.81	8.53	8.60	6.99
12	9.34	9.64	9.95	10.29	10.46	10.61	10.71	9.52	8.82	8.52	8.60	6.99
13	9.38	9.65	9.97	10.29	10.46	10.62	10.71	9.46	8.84	8.50	8.63	7.01
14	9.39	9.66	9.99	10.29	10.47	10.63	10.71	9.38	8.83	8.51	8.68	7.02
15	9.40	9.67	9.99	10.31	10.49	10.63	10.71	9.32	8.80	8.52	8.68	7.03
16	9.40	9.68	10.01	10.31	10.50	10.63	10.72	9.26	8.79	8.51	8.57	7.08
17	9.39	9.70	10.02	10.31	10.50	10.63	10.72	9.20	8.79	8.51	8.43	7.10
18	9.41	9.70	10.04	10.31	10.50	10.64	10.72	9.12	8.80	8.52	8.35	7.10
19	9.44	9.72	10.04	10.32	10.52	10.65	10.72	9.05	8.80	8.52	8.23	7.14
20	9.44	9.72	10.03	10.33	10.53	10.65	10.72	8.98	8.82	8.53	8.03	7.20
21	9.44	9.73	10.04	10.35	10.54	10.65	10.73	8.92	8.83	8.52	7.79	7.22
22	9.45	9.75	10.06	10.35	10.54	10.65	10.74	8.87	8.84	8.53	7.54	7.22
23	9.48	9.77	10.09	10.35	10.55	10.65	10.74	8.82	8.84	8.52	7.30	7.23
24	9.51	9.80	10.10	10.36	10.55	10.64	10.74	8.77	8.85	8.53	7.12	7.25
25	9.52	9.80	10.10	10.39	10.55	10.64	10.74	8.73	8.85	8.53	7.02	7.26
26	9.52	9.81	10.11	10.38	10.55	10.64	10.72	8.71	8.87	8.51	6.96	7.25
27	9.52	9.82	10.12	10.39	10.55	10.65	10.71	8.69	8.88	8.52	6.93	7.28
28	9.53	9.82	10.15	10.39	10.55	10.67	10.67	8.68	8.91	8.52	6.93	7.29
29	9.52	9.82	10.15	10.39	---	10.67	10.60	8.68	8.91	8.50	6.94	7.34
30	9.55	9.83	10.17	10.39	---	10.68	10.50	8.69	8.93	8.50	6.94	7.31
31	9.54	---	10.17	10.41	---	10.69	---	8.72	---	8.50	6.94	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644547147141801. Local number, FD00200306CCCC1002.

LOCATION.--Lat 64°45'47", Long 147°14'18", in SW1/4 SW1/4 SW1/4 sec. 6, T.2 S., R.3 E., (Fairbanks D-1 SE quad), Fairbanks Meridian, Hydrologic Unit 19040506, Well located 0.5 mi on Hurst Road from the intersection with Nelson Road, then 30 ft east of road, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in.PVC inner casing, depth 17.4 ft, screen opening from 12.4 ft to 16.9 ft.

INSTRUMENTATION.--Intermittent measurements by USGS personnel August 2001 to current year; submersible pressure transducer/ electronic data logger from October 12, 2001 to current year.

DATUM.--Elevation of land-surface datum is 491.8 ft above sea level (surveyed by U.S. Army Corps of Engineers). Measuring point: top of metal collar on outer casing 2.55 feet above land surface datum.

REMARKS.--Observation well drilled April 11, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-3. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--August 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.43 ft below land-surface datum, September 14, 2002; lowest, 10.07 ft below land-surface datum, April 22-23, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 6.43 ft below land-surface datum, September 14; lowest, 10.07 ft below land-surface datum, April 22-23.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVELS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.87	9.23	9.62	9.86	9.97	10.04	9.81	7.93	8.29	7.83	6.72
2	---	8.88	9.25	9.62	9.87	9.97	10.04	9.70	7.93	8.30	7.84	6.70
3	---	8.90	9.25	9.63	9.87	9.98	10.04	9.60	7.94	8.27	7.84	6.67
4	---	8.92	9.28	9.65	9.87	10.00	10.03	9.49	7.93	8.28	7.84	6.64
5	---	8.95	9.29	9.64	9.88	9.99	10.02	9.37	7.95	8.22	7.82	6.61
6	---	8.96	9.29	9.64	9.89	9.99	10.02	9.26	7.99	8.06	7.86	6.56
7	---	8.97	9.31	9.65	9.89	9.99	10.03	9.15	8.01	7.96	7.89	6.54
8	---	8.96	9.32	9.67	9.90	9.99	10.02	9.04	8.00	7.90	7.90	6.53
9	---	8.97	9.34	9.68	9.89	9.99	10.02	8.95	8.01	7.87	7.94	6.51
10	---	8.98	9.34	9.70	9.89	9.97	10.02	8.87	8.02	7.83	7.94	6.49
11	---	8.99	9.36	9.72	9.91	9.97	10.04	8.78	8.06	7.82	7.94	6.47
12	8.65	9.00	9.36	9.73	9.90	9.98	10.04	8.69	8.09	7.81	7.94	6.45
13	8.69	9.01	9.38	9.74	9.90	10.00	10.03	8.60	8.11	7.79	7.98	6.44
14	8.70	9.01	9.40	9.75	9.90	10.00	10.03	8.52	8.10	7.80	8.02	6.43
15	8.70	9.02	9.40	9.76	9.92	10.01	10.03	8.47	8.08	7.82	8.01	6.44
16	8.71	9.03	9.42	9.77	9.93	10.00	10.05	8.42	8.07	7.82	7.99	6.46
17	8.69	9.05	9.43	9.77	9.93	10.01	10.03	8.37	8.07	7.83	7.81	6.46
18	8.71	9.05	9.45	9.77	9.93	10.01	10.04	8.30	8.09	7.83	7.67	6.47
19	8.75	9.08	9.46	9.78	9.94	10.02	10.04	8.24	8.09	7.86	7.54	6.49
20	8.75	9.08	9.45	9.79	9.95	10.02	10.04	8.18	8.13	7.87	7.44	6.54
21	8.75	9.09	9.46	9.80	9.96	10.02	10.04	8.13	8.14	7.86	7.36	6.55
22	8.76	9.11	9.48	9.81	9.96	10.01	10.06	8.09	8.14	7.87	7.25	6.55
23	8.79	9.13	9.51	9.81	9.96	10.00	10.06	8.03	8.15	7.85	7.17	6.56
24	8.82	9.16	9.52	9.82	9.96	10.00	10.05	7.99	8.15	7.86	7.09	6.57
25	8.84	9.17	9.53	9.84	9.96	9.99	10.04	7.94	8.17	7.89	7.01	6.57
26	8.85	9.19	9.54	9.84	9.96	9.99	10.02	7.90	8.19	7.85	6.95	6.56
27	8.85	9.20	9.55	9.84	9.96	10.01	10.02	7.90	8.20	7.85	6.89	6.58
28	8.85	9.21	9.57	9.85	9.95	10.03	9.99	7.88	8.22	7.87	6.85	6.59
29	8.85	9.21	9.58	9.85	---	10.03	9.94	7.89	8.23	7.85	6.80	6.64
30	8.87	9.22	9.59	9.85	---	10.04	9.86	7.90	8.26	7.84	6.76	6.62
31	8.87	---	9.61	9.86	---	10.04	---	7.94	---	7.84	6.74	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644603147131401. Local number, FD00200306DBCA1001.

LOCATION.--Lat 64°46′03″, Long 147°13′14″, in SW1/4 NW1/4 SE1/4 sec. 06, T.2 S., R.3 E., (Fairbanks D-1 SE quad), Fairbanks Meridian, Hydrologic Unit 19040506, Well located 0.6 mi west on turn off to Lake Park in Chena Lakes Recreation Area, North Pole.
Owner: U.S. Army Corps of Engineers.
AQUIFER.--Chena Alluvium of Quaternary age.
WELL CHARACTERISTICS.--Diameter 2-in. pvc casing, depth 19.3 ft., screen open from 14.3 to 18.8 ft.
INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 5, 2001 to current year.
DATUM.--Elevation of land-surface datum is 488.3 ft above sea level (surveyed by U.S.Army Corps of Engineers). Measuring point: top of outer casing 2.60 ft above land-surface datum.
REMARKS.--Observation well drilled April 6, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-1. Records are fair due to unquantified movement of the measuring point.
PERIOD OF RECORD.--July 2001 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 5.14 ft below land-surface datum, September 6-7, 2002; lowest 8.49 ft below land-surface datum, March 18-21, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level measured 5.14 ft below land-surface datum, September 6-7; lowest 8.49 ft below land-surface datum, March 18-21, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.68	7.99	8.32	8.44	8.45	8.47	8.09	5.92	6.71	6.52	5.17
2	---	7.70	8.00	8.32	8.44	8.45	8.47	7.96	5.93	6.72	6.53	5.18
3	---	7.70	8.01	8.33	8.43	8.47	8.47	7.85	5.96	6.70	6.55	5.17
4	---	7.72	8.03	8.34	8.43	8.47	8.46	7.73	5.98	6.73	6.57	5.16
5	7.45	7.73	8.04	8.31	8.45	8.46	8.45	7.60	6.01	6.62	6.59	5.16
6	7.44	7.74	8.05	8.33	8.45	8.46	8.46	7.50	6.06	6.54	6.62	5.14
7	7.46	7.74	8.06	8.33	8.45	8.46	8.46	7.39	6.10	6.44	6.65	5.14
8	7.46	7.73	8.07	8.36	8.46	8.46	8.46	7.30	6.11	6.35	6.68	5.16
9	7.45	7.75	8.08	8.36	8.44	8.46	8.46	7.22	6.14	6.29	6.71	5.18
10	7.47	7.75	8.10	8.37	8.43	8.44	8.46	7.15	6.18	6.25	6.72	5.19
11	7.49	7.76	8.11	8.38	8.44	8.44	8.47	7.05	6.24	6.24	6.73	5.19
12	7.51	7.77	8.12	8.39	8.44	8.46	8.46	6.95	6.27	6.23	6.75	5.20
13	7.53	7.78	8.14	8.40	8.43	8.47	8.45	6.85	6.31	6.22	6.78	5.22
14	7.54	7.79	8.15	8.39	8.44	8.48	8.45	6.75	6.32	6.23	6.82	5.24
15	7.55	7.80	8.15	8.41	8.44	8.47	8.45	6.66	6.32	6.26	6.84	5.26
16	7.55	7.81	8.16	8.40	8.44	8.47	8.46	6.58	6.34	6.28	6.75	5.31
17	7.55	7.83	8.17	8.40	8.44	8.47	8.45	6.49	6.35	6.30	6.65	5.35
18	7.58	7.83	8.18	8.40	8.44	8.47	8.46	6.39	6.38	6.33	6.55	5.37
19	7.60	7.85	8.19	8.41	8.45	8.48	8.45	6.30	6.40	6.35	6.46	5.41
20	7.61	7.85	8.18	8.42	8.45	8.48	8.45	6.19	6.43	6.36	6.29	5.45
21	7.62	7.87	8.20	8.42	8.45	8.47	8.45	6.12	6.45	6.39	6.10	5.48
22	7.64	7.88	8.21	8.41	8.45	8.46	8.46	6.04	6.48	6.41	5.93	5.51
23	7.65	7.90	8.24	8.41	8.45	8.46	8.45	5.97	6.50	6.44	5.78	5.53
24	7.66	7.93	8.24	8.43	8.44	8.46	8.45	5.91	6.52	6.45	5.63	5.57
25	7.67	7.93	8.25	8.44	8.44	8.44	8.45	5.87	6.53	6.47	5.51	5.59
26	7.66	7.95	8.26	8.43	8.44	8.45	8.40	5.85	6.56	6.47	5.40	5.61
27	7.66	7.96	8.27	8.43	8.44	8.45	8.37	5.84	6.58	6.48	5.31	5.64
28	7.67	7.96	8.28	8.44	8.44	8.46	8.33	5.83	6.61	6.48	5.26	5.66
29	7.67	7.97	8.29	8.43	---	8.47	8.25	5.84	6.63	6.48	5.21	5.70
30	7.69	7.98	8.30	8.44	---	8.46	8.15	5.87	6.66	6.49	5.19	5.71
31	7.68	---	8.31	8.44	---	8.47	---	5.90	---	6.50	5.18	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

644603147151801. Local number, FD00200201DBCB1002.

LOCATION.--Lat 64°46'03", Long 147°15'18", in SW^1/4 NW^1/4 SE^1/4 sec. 1, T.2 S., R.2 E., (Fairbanks D-1 SW quad), Fairbanks Meridian, Hydrologic Unit 19040506. Well located east side of Nelson Road approximately 2.3 mi from Laurance Road. West of Chena Lakes Flood Control Project and Recreational Area, North Pole.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Chena Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Diameter 2-in. PVC casing, depth 19.8 ft, screen openings from 14.8 ft to 19.3 ft

INSTRUMENTATION.--Intermittent measurements by USGS personnel July 2001 to current year; submersible pressure transducer/ electronic data logger from October 12, 2001 to current year.

DATUM.--Elevation of land-surface datum is 491.2 ft above sea level (surveyed by U.S. Army Corps of Engineers 1995). Measuring point: top of outer casing 2.95 ft above land surface datum.

REMARKS.--Observation well drilled April 11, 1995 by the U.S. Army Corps of Engineers and designated as DSAP-2. Records are fair due to unquantified movement of the measuring point.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.94 ft below land-surface datum, September 14-15, 2002; lowest, 11.83 ft below land-surface datum, March 31, 2002.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 8.94 ft below land-surface datum, September 14-15; lowest, 11.83 ft below land-surface datum, March 31.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.91	11.27	11.64	11.78	11.80	11.82	11.50	9.84	10.20	9.95	9.23
2	---	10.92	11.29	11.64	11.78	11.80	11.82	11.39	9.84	10.23	9.95	9.20
3	---	10.94	11.30	11.65	11.78	11.81	11.82	11.31	9.85	10.22	9.95	9.16
4	---	10.95	11.32	11.67	11.77	11.82	11.81	11.22	9.86	10.23	9.95	9.13
5	---	10.98	11.34	11.64	11.78	11.82	11.80	11.13	9.86	10.21	9.96	9.10
6	---	10.99	11.34	11.65	11.79	11.81	11.80	11.03	9.89	10.14	9.97	9.07
7	---	11.00	11.36	11.64	11.79	11.80	11.81	10.95	9.92	10.07	9.99	9.05
8	---	11.00	11.37	11.66	11.80	11.80	11.79	10.86	9.93	10.00	10.01	9.03
9	---	11.01	11.39	11.66	11.78	11.80	11.79	10.79	9.94	9.95	10.04	9.02
10	---	11.02	11.40	11.68	11.78	11.78	11.79	10.72	9.96	9.90	10.06	9.00
11	---	11.03	11.41	11.70	11.78	11.78	11.80	10.65	9.99	9.88	10.06	8.98
12	10.69	11.03	11.41	11.71	11.78	11.78	11.81	10.59	10.01	9.86	10.07	8.97
13	10.72	11.05	11.44	11.72	11.77	11.80	11.79	10.52	10.04	9.84	10.10	8.95
14	10.73	11.06	11.46	11.72	11.77	11.81	11.79	10.46	10.04	9.84	10.14	8.94
15	10.74	11.07	11.46	11.73	11.79	11.81	11.79	10.40	10.02	9.84	10.14	8.94
16	10.74	11.08	11.48	11.74	11.80	11.80	11.81	10.35	10.02	9.84	10.14	8.95
17	10.74	11.10	11.49	11.73	11.79	11.80	11.80	10.31	10.02	9.84	10.09	8.96
18	10.75	11.10	11.50	11.73	11.79	11.80	11.81	10.25	10.04	9.84	10.00	8.96
19	10.78	11.12	11.51	11.74	11.80	11.81	11.81	10.20	10.04	9.86	9.92	8.98
20	10.79	11.13	11.50	11.75	11.81	11.81	11.80	10.15	10.07	9.87	9.84	9.03
21	10.79	11.14	11.50	11.76	11.81	11.81	11.80	10.10	10.07	9.89	9.79	9.04
22	10.80	11.16	11.52	11.76	11.81	11.80	11.82	10.06	10.08	9.89	9.74	9.03
23	10.82	11.18	11.54	11.75	11.81	11.79	11.82	10.01	10.08	9.89	9.69	9.04
24	10.84	11.21	11.56	11.76	11.80	11.78	11.81	9.96	10.10	9.90	9.63	9.05
25	10.86	11.23	11.57	11.78	11.80	11.77	11.80	9.92	10.11	9.93	9.57	9.05
26	10.87	11.24	11.57	11.77	11.79	11.77	11.79	9.88	10.13	9.93	9.51	9.05
27	10.87	11.25	11.58	11.77	11.79	11.78	11.78	9.85	10.14	9.93	9.44	9.06
28	10.88	11.26	11.60	11.78	11.79	11.79	11.73	9.83	10.16	9.94	9.39	9.08
29	10.88	11.27	11.61	11.77	---	11.81	11.68	9.82	10.16	9.95	9.34	9.12
30	10.90	11.27	11.62	11.77	---	11.81	11.57	9.82	10.18	9.94	9.29	9.13
31	10.91	---	11.63	11.78	---	11.82	---	9.84	---	9.95	9.25	---

YUKON ALASKA

FAIRBANKS NORTH STAR BOROUGH–CONTINUED

645434147385101. Local number, FB00100113DDBC2001 50673.

LOCATION.--Lat 64°54′34″, long 147°38′51″, in NW1/4 SE1/4 SE1/4 sec. 13, T.1 S., R.1 W., (Fairbanks D-2 NE quad), Fairbanks Meridian, Hydrologic Unit, 19040506, in road right-of-way at 2.3 mi McGrath Road, off Farmers' Loop Road near Fairbanks.

Owner: U.S. Geological Survey.

AQUIFER.--Quartz-mica schist of pre-Jurassic age.

WELL CHARACTERISTICS.--Diameter 6-in., depth 100 ft, metal casing to 98.5 ft, perforated openings from 88.5 ft to 98.5 ft, and open hole to 100 ft.

INSTRUMENTATION.--Digital recorder, from October 1983 to June 1995. Electronic data logger from June 1995 to May 1996. Digital recorder, from May 1996 to September 1997. Electronic data logger from October 1997 to present.

DATUM.--Elevation of land-surface datum is 740 ft above sea level (determined from topographic map). Measuring point: top of casing 1.00 ft above land-surface datum.

REMARKS.--Observation well drilled by the U.S. Geological Survey, designated as McGrath Well, replaces old McGrath Estates well, 645429147383801.

PERIOD OF RECORD.--June 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.13 ft below land-surface datum, October 28, 1983; lowest, 44.85 ft below land-surface datum, July 3, 1990.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 42.31 ft below land-surface datum, October 9, 10 and November 1; lowest, 43.94 ft below land-surface datum, June 17.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY HIGHEST WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42.48	42.31	42.42	42.64	42.90	43.01	43.33	43.29	43.52	43.71	43.27	42.81
2	42.49	42.32	42.44	42.59	42.89	43.08	43.30	43.34	43.47	43.64	43.21	42.86
3	42.56	42.42	42.50	42.59	42.93	43.15	43.28	43.33	43.45	43.50	43.20	42.85
4	42.44	42.46	42.53	42.65	42.88	43.27	43.26	43.32	43.40	43.51	43.25	42.73
5	42.40	42.59	42.49	42.51	42.88	43.17	43.16	43.33	43.44	43.56	43.16	42.69
6	42.40	42.56	42.48	42.50	42.94	43.12	43.15	43.34	43.49	43.59	43.14	42.63
7	42.43	42.51	42.49	42.53	42.91	43.09	43.19	43.29	43.54	43.62	43.11	42.62
8	42.41	42.37	42.51	42.60	42.91	43.09	43.22	43.24	43.53	43.57	43.11	42.66
9	42.31	42.37	42.56	42.64	42.87	43.09	43.18	43.21	43.49	43.56	43.12	42.71
10	42.31	42.39	42.62	42.66	42.77	43.09	43.18	43.21	43.60	43.52	43.14	42.75
11	42.36	42.41	42.50	42.75	42.78	43.07	43.21	43.24	43.57	43.49	43.08	42.69
12	42.41	42.50	42.46	42.84	42.84	43.07	43.27	43.33	43.55	43.49	43.03	42.62
13	42.51	42.47	42.52	42.90	42.81	43.11	43.23	43.26	43.57	43.47	43.04	42.61
14	42.59	42.41	42.60	42.79	42.80	43.17	43.23	43.25	43.52	43.46	43.13	42.58
15	42.54	42.39	42.55	42.79	42.85	43.23	43.24	43.21	43.47	43.49	43.05	42.61
16	42.48	42.40	42.57	42.82	42.96	43.18	43.31	43.21	43.62	43.50	42.99	42.67
17	42.34	42.51	42.63	42.74	42.98	43.18	43.27	43.26	43.79	43.46	42.97	42.68
18	42.34	42.49	42.59	42.68	42.97	43.20	43.27	43.32	43.74	43.42	42.98	42.65
19	42.44	42.49	42.57	42.69	43.01	43.25	43.31	43.32	43.66	43.42	42.95	42.65
20	42.45	42.38	42.40	42.71	43.09	43.23	43.30	43.31	43.60	43.45	42.85	42.73
21	42.39	42.39	42.39	42.82	43.16	43.21	43.32	43.27	43.60	43.45	42.82	42.75
22	42.41	42.46	42.46	42.81	43.15	43.15	43.41	43.32	43.61	43.40	42.85	42.69
23	42.48	42.51	42.55	42.78	43.11	43.14	43.45	43.36	43.64	43.32	42.89	42.66
24	42.52	42.60	42.68	42.80	43.11	43.15	43.40	43.37	43.65	43.29	42.92	42.65
25	42.54	42.58	42.68	42.89	43.07	43.13	43.35	43.36	43.63	43.32	42.99	42.60
26	42.40	42.58	42.62	42.90	43.04	43.13	43.27	43.38	43.59	43.30	42.98	42.49
27	42.34	42.51	42.61	42.87	43.04	43.13	43.27	43.40	43.59	43.29	42.84	42.49
28	42.39	42.41	42.64	42.89	42.99	43.20	43.32	43.47	43.61	43.33	42.78	42.54
29	42.37	42.40	42.68	42.82	---	43.29	43.37	43.45	43.59	43.38	42.79	42.59
30	42.37	42.43	42.70	42.81	---	43.34	43.30	43.45	43.62	43.33	42.77	42.53
31	42.33	---	42.70	42.83	---	43.34	---	43.47	---	43.31	42.76	---

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CONVERSION FACTORS

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$°F = (1.8 \times °C) + 32$$